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Fall 2011

Celebrating a legacy of mission

Loma Linda University

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SCOPE

LOMA LINDA UNIVERSITY

***Celebrating
a legacy
of mission***

Fall 2011

LOMA LINDA UNIVERSITY

transforming lives

Allied Health Professions

Cardiac electrophysiology, post-BS certificate, AS †
 Clinical laboratory science, BS
 Coding specialist, certificate
 Communication sciences and disorders, BS, MS
 Cytotechnology, certificate, BS
 Diagnostic medical sonography, certificate
 Emergency medical care, BS
 Health care administration, BS ††
 Health information administration, BS ♦ †
 Health professions education, post-BS certificate, MS
 Medical dosimetry, certificate
 Medical radiography, AS ♦
 Nuclear medicine technology, certificate ♦
 Nutrition and dietetics, BS, MS
 Nutritional care management, MS ††
 Occupational therapy, MOT
 Occupational therapy, OTD ††
 Orthotics and prosthetics, MS
 Physical therapy, MPT, DPT ♦ (post-professional DPT only)
 Physical therapy, DSc
 Physical therapist assistant, AS
 Physician assistant, MPA
 Polysomnography, post-AS certificate
 Radiation therapy technology, certificate ♦
 Radiation science, BS, MS ††
 Radiologist assistant, MS ††
 Rehabilitation science, PhD
 Respiratory care, certificate, BS ♦

Dentistry

Dental hygiene, BS †
 Dentistry, DDS
 Biomedical sciences/dentistry, post-BS certificate
 Dental anesthesiology, post-doctoral certificate, MSD
 Endodontics, post-doctoral certificate, MS, MSD
 Implant dentistry, post-doctoral certificate, MS, MSD
 Oral and maxillofacial surgery, post-doctoral certificate, MS, MSD
 Orthodontics and dentofacial orthopedics, post-doctoral certificate, MS
 Pediatric dentistry, post-doctoral certificate, MS, MSD
 Periodontics, post-doctoral certificate, MS, MSD
 Prosthodontics, post-doctoral certificate, MS, MSD

♦ Offered off campus.

Periodontics/prosthodontics, post-doctoral certificate, MS, MSD
 Periodontics/implant dentistry, post-doctoral certificate, MS, MSD
 Prosthodontics/implant dentistry, post-doctoral certificate, MS, MSD

Medicine

Anatomy, MS, PhD
 Biomedical sciences, post-BS certificate
 Biochemistry, MS, PhD
 Medicine, MD
 Microbiology and molecular genetics, MS, PhD
 Medicine/anatomy, MD/MS, PhD
 Medicine/biochemistry, MD/MS, PhD
 Medicine/microbiology, MD/MS, PhD
 Medicine/pharmacology, MD/MS, PhD
 Medicine/physiology, MD/MS, PhD
 Pharmacology, PhD
 Physiology, MS, PhD

Nursing

Certified advanced practice, RN, MS
 Clinical nurse specialist
 Growing family, MS, post-master's certificate
 Adult and aging family, MS, post-master's certificate
 Nurse practitioner
 Neonatal nurse practitioner, MS, post-master's certificate
 Pediatric nurse practitioner, MS, post-master's certificate
 Family nurse practitioner, MS, post-master's certificate
 Adult nurse practitioner, MS, post-master's certificate
 Psychiatric nurse practitioner, MS, post-master's certificate
 Nursing, BS †
 Nursing, MS
 Nursing administration
 Nurse educator: growing family ♦
 Nurse educator: adult and aging family ♦
 Nursing, PhD, DNP

Pharmacy

Doctor of pharmacy, PharmD

Public Health

Basic epidemiology, post-BS certificate
 Biostatistics, MPH, MSPH, post-BS certificate
 Basic biostatistics, post-BS certificate
 Emergency preparedness and response, post-BS certificate

† Also offered online.

Environmental and occupational health
 geographic information systems, MPH
 Epidemiology, DrPH, PhD, post-BS certificate
 Epidemiology

Environmental epidemiology, MPH
 Health services research, MPH
 Medical epidemiology, MPH
 Nutritional epidemiology, MPH
 Research epidemiology, MPH
 Spatial epidemiology, MPH
 Epidemiology research methods, post-BS certificate
 Global health, DrPH
 Global health
 Global epidemiology, MPH
 Global health and maternal and child health, MPH
 Health care administration, MBA ♦
 Health education, DrPH ♦
 Health education, MPH †
 Health geographics and biomedical data management, BSPH
 Health geoinformatics, post-BS certificate
 Health policy and leadership, MPH, DrPH
 Lifestyle medicine, MPH
 Lifestyle intervention, post-BS certificate
 Maternal and child health, MPH, post-BS certificate
 Nutrition, MS, DrPH
 Public health nutrition, MPH
 Public health practice, MPH ♦ †
 Preventive care, DrPH
 Tobacco control methods, post-BS certificate

Religion

Bioethics, post-BS certificate, MA
 Clinical ministry, post-BS certificate, MA ♦
 Denominational studies for chaplains, post-BS certificate
 Religion and the sciences, MA

Science and Technology

Biology, MS, PhD
 Case management, post-BS certificate
 Child life specialist, post-BS certificate, MS
 Clinical mediation, post-BS certificate
 Clinical social work, PhD
 Counseling, MS
 Criminal justice, MS
 Drug and alcohol counseling, post-BS certificate
 Earth science, PhD
 Environmental sciences, BS

Family counseling, post-BS certificate ♦
 Family life education, post-BS certificate ♦
 Family studies, MA, PhD
 Geology, BS, MS
 Group counseling, post-BS certificate
 Marital and family therapy, MS, PhD, DMFT ♦
 Natural sciences, MS (non-thesis)
 Program evaluation and research, post-BS certificate
 Psychology, PsyD, PhD
 School counseling (PPS Credential Program), post-master's certificate
 Social policy and social research, PhD
 Social work, MSW

Interschool combined programs

Dentistry, DDS/MPH, DDS/MA, DDS/MS, DDS/PhD
 Health sciences, BS
 Medicine/oral & maxillofacial surgery, MD/post-doctoral certificate
 Nursing/public health, MS/MPH
 Nursing/bioethics, MS/MA
 Health education/marriage and family counseling, MPH/MS
 Health education/psychology, MPH/PsyD
 Maternal and child health/social work, MPH/MSW
 Preventive care/psychology, DrPH/PsyD
 Bioethics/medicine, MA/MD
 Social policy and social research/bioethics, PhD/MA
 Bioethics/psychology, MA/PsyD, MA/PhD
 Clinical ministry/marital and family therapy, MA/MS



LOMA LINDA UNIVERSITY

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Fall 2011 | Volume 47, Number 2

SCOPE is published by Loma Linda University, an educational and medical institution operated by the General Conference of Seventh-day Adventists.

For subscription information, alumni news notes, or address changes, write to:

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Front cover: The new Mission Globe, centerpiece of the Centennial Pathway, will include the names of individuals from Loma Linda University who have served in overseas missions. *Story on page 2.*

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Top left photo: Third-year medical students Carla Perez (left) and Sarah Beck are two of the 15 students from Puerto Rico who recently transferred to the Loma Linda University School of Medicine. *Story on page 31.*

Top right photo: The sign proves it: a windblown Tricia Murdoch, MPH, indeed reached the summit of Kilimanjaro. *Story on page 46.*

Bottom photo: Second-year dental students Rachel Tanbunan and Peter Park use sock puppets to teach children in Valle de Angeles, Honduras, about tooth care. *Story on page 40.*



Answering the call to serve

For more than a century, medical missionaries from Loma Linda University have served humanity in distant locales

As she stepped off of the boat into a strange new world, the first thought to enter Miss Almeda Kerr's mind was how different everything was from what she thought it would be.

"I supposed that I should be out among the natives working where there was very little civilization, but instead of that, we find ourselves in a modern city," she wrote in the January 1910 issue of *Life and Health*. "But we are glad we are here," Miss Kerr continued. "We are thankful to be instruments in the Lord's hands to carry truth to them."

So began the journey of the first medical missionary sent by Loma Linda. Almeda Kerr, known as "Meda" to her friends, graduated as part of the first nursing program at the College of Evangelists.

It was that small handful of graduates who, in 1907, began the work they were called to do. It had not been even two years since

Ellen G. White, pioneer of the Seventh-day Adventist Church and one of the founders of the College of Evangelists, had stood on the grounds of Loma Linda and announced boldly how much impact mission work could have on a person's heart.

"We have been instructed by the Lord that the medical missionary work is to be to the work of the third angel's message as the right hand to the body," said Ms. White at the college's official dedication in 1905. "In new fields no work is so successful as medical missionary work."

With medical equipment in their hands and the love of Christ in their hearts, the first alumni missionaries set out to do God's business.

Meda Kerr was sent by the General Conference to Montevideo, Uruguay. It was there that she worked to break down prejudice among the local population by providing medical services to those most in need.

In this iconic photo of the first class of students in the nursing program, the class is introduced to Richard Edward Abbott, newborn son of the college president. Almada Kerr is on the left. ◀

"I wish I could say something to influence others to come and help us in this needy field," wrote Miss Kerr. "Souls are perishing daily without God and without hope."

Her plea was clearly heard. By 1910, the College of Evangelists had already added a School of Medicine and changed its name to College of Medical Evangelists (CME). Of the first 40 graduates, 10 had gone out as missionaries. Though many, like Miss Kerr, served in South America, the growing list included destinations quite difficult to travel to—China, India, and Japan among these.

According to Richard Schaefer, Loma Linda University historian, mission service only grew in popularity among the graduates of CME.

"In his quadrennial report to the General Conference in 1966," says Mr. Schaefer, "CME president G. T. Anderson announced that of the 6,500 graduates of CME, 12 percent had served overseas."

Mr. Schaefer also points out that at the time, it was reported CME had sent out more physicians to world medical missions than all the other medical schools in the United States combined. These graduates did more than just see patients and hand out literature; they made lasting impressions. During the first 50 years of CME, graduates averaged the opening of one new hospital per year.

"As you look out across the globe, the landscape is literally dotted with hospitals and clinics started by our graduates," says

Richard H. Hart, MD, DrPH, president of Loma Linda University. Though in 1961, the name of the institution changed from College of Medical Evangelists to Loma Linda University, the commitment to mission work didn't waver.

Programs soon sprang up to assist those with an interest in mission. Currently, there are 56 medical and dental students and residents in the deferred mission appointee (DMA) program. These individuals are preparing to serve in various locations around the globe, continuing to answer the call.

It is safe to say that every School of Medicine graduating class since 1914 has had at least one representative who has served in the mission field.

The DMA program has inspired many graduates to commit to mission service. Through the program, more than 226 medical graduates have been sent overseas, each with an average of 6.63 years of service. The effect has been immeasurable.

"Throughout the world, you can see the names of Adventist medical institutions, many of which are familiar to most of us—Koza in Cameroon; Gimbie in Ethiopia; Kendu Bay in Kenya; Malamulo in Malawi; Ishaka in Uganda; Heri in Tanzania; and Mwami and Yuka in Zambia," adds Dr. Hart. Currently, there are more than 70 Adventist hospitals in the developing world—25 in Africa, 12 in Interamerica, 11 in India, and 10 in the Philippines.

The accomplishments of Loma Linda missionaries demonstrate what's achievable when individuals use their abilities to help a cause greater than their personal goals. Missionaries learn to rely on God and to rely on those around them.

"Our prayer is that each of our students will have the chance to experience God's blessings in their studies and the excitement of service to Him," says Dr. Hart.

A unified dedication to mission work has been the driving force since the founding of Loma Linda. To symbolize this continuing emphasis, the Mission Globe now stands as the centerpiece of the Centennial Pathway.

Alumni, students, and staff of any Loma Linda entity who have served for a cumulative period of one year or more can have their name engraved in granite at the base of the globe.

The names of those that have served are already inscribed. There is room for many more, as graduates like Meda Kerr continue to answer the call.

If you are a graduate of Loma Linda University and have served overseas, your name can be inscribed in the granite base—at no cost to you. Simply go online to apply at: <www.llu.edu/central/centennial/pathway/missionglobe.page>. SCOPE



Names are inscribed around the Mission Globe. ◀



On the front lines in Africa

A young family serves at a remote hospital in Central Africa's Tchad

Under the scorching central African sun, Olen and Danae Netteburg, graduates of Loma Linda University School of Medicine, serve as the only physicians for a rural district of more than 190,000 people.

They left their friends and the comforts of modern technology to devote their knowledge and skills as medical missionaries to the Hopital Adventiste de Bere, a 70-bed bush hospital in southern Tchad. Olen is an emergency medicine specialist, and Danae is an obstetrician/gynecologist. With their sons Lyol and Zane, the couple has started their second year of service in Tchad. "We were called by God," says Olen.

Olen and Danae both previously served in Africa. Danae was a student missionary in Zambia, and Olen spent six months volunteering for the Seventh-day Adventist Church up and down east Africa. "Both of us had fallen in love with the mission field, and with Africa specifically," Olen says. They both hoped to return as physicians.

While attending medical school, Olen and Danae joined the deferred mission appointee (DMA) program—a service offered by Loma Linda University and the General Conference of Seventh-day Adventists to cover medical or dental school tuition for students willing to serve.

"When I learned about the DMA program, it was like an explorer finding a short-cut to the Promised Land!" says Olen, who had been expecting to work a few years to pay off loans before returning to the mission field. "It would allow me to start my dream job that much sooner in life. And there was a really cute girl in the DMA program too. So I married her!"

While deciding where to serve upon completing residency, circumstances unexpectedly led the couple to Bere when the only physician, James Appel, MD, also a DMA graduate, was planning to leave and needed a replacement. The couple agreed to a six-year commitment with the Church to serve in Tchad to amortize their school loans, but they will stay longer if they feel that it is God's will. They have made a deal with God to "go wherever and whenever He wants."

Olen and Danae Netteburg with their son, Lyol, wear the traditional clothing of their new home. Since this photo, they have added a new little one, Zane. ◀

As a mud hut and thatch roof village, Bere offers few amenities. "We have oxygen," Olen jokes, "... the 21 percent oxygen in the air! We also have an incubator: the African sun. Our surgical bed lowers itself at random times during surgery," and "our air conditioner lowers the temperature in the operating room from 130 degrees to 100 degrees."

On a normal day, Olen and Danae each see 30 to 50 patients during rounds and office visits, depending on the season.

The daily routine begins with staff worship at 7:00 a.m. Following worship, the members conduct a morning greeting in the form of a sports team after-game handshake. Around 8:00, there is staff education to discuss medical topics of interest. At 9:00, rounds begin with Olen in pediatrics and medicine, and Danae in maternity and surgery. After rounds, Olen starts seeing office patients while Danae goes to the operating room.

Throughout the day, Olen and Danae are interrupted to see patients in *Urgence*, the French name for the emergency room. There are administrative meetings in the evening and, living near the hospital, the couple can expect nurses to knock on their door at any time.

"In six months, we've already seen a greater variety of extreme pathology than most doctors see in a career," says Olen. They have treated worms, tuberculosis, and cancers, and performed numerous surgeries—nephrectomies, uterine ruptures, 44-week molar pregnancies, C-sections, hysterectomies, orthopedic plating, and more.

"Early on, we had to give up our notion that 'nobody will ever die at our hospital,'" remarks Olen. "We have lost children and adults to rabies, tetanus, malaria, meningitis, hepatitis, HIV, abdominal infections, and on and on and on." The lack of equipment and impoverished lifestyle of the people limit the two physicians' abilities.

"But," Olen adds, "we have also had way more than our share of blessings." He tells of women returning to their husbands and villages with repaired fistulas so they no longer smell of urine; of trauma patients recovering; and of tuberculosis and leprosy patients cured. He also says, "We have had exorcisms and yes, prayer works!"

Through their work in Tchad, Olen and Danae have ministered medically and spiritually to the people around them. Their



Olen (left) attends to a young patient in the community. ▲

work allows them to provide comfort and hope. Recalling one case of a pregnant woman, Olen says, “By putting us in that situation, God opened up to us an entire village that didn’t have a single Bible—a village eager to read and learn about the true, loving nature of God.”

Along with self-supporting missionary families headed by Jamie and Tammy Parker, and Gary and Wendy Roberts, Olen and Danae “hope to give the people a connection to the power of God, and an understanding of who He is and what He has done, can do, wants to do, and will do for them in their lives.”

The couple has also strengthened their own trust in God. They placed their firstborn, Lyol, in God’s hands when at the age of one he contracted malaria three times during their first six months in Tchad. They also trusted God while Danae was pregnant, with no prenatal care available in the country.

And God came through! Lyol defeated malaria and Zane, their newest addition, was born two weeks after they returned to America from their year abroad, and two days before Danae took—and passed—her medical boards.

“Without Him,” states Olen, “not only would we not have a

purpose, but we’d be cut off from the Source of strength who keeps us going day in and day out.”

Olen and Danae have enjoyed serving and raising their children among the people of Tchad. At five months old, Lyol was the youngest foreign baby to visit the village. Now two years old, he is showered with constant attention. “He has more babysitters than fingers,” says Olen. “He loves to run around with the locals and enjoys basking in his celebrity status as a foreigner.”

Lyol also loves talking to his grandparents via cell phone. The Internet is too slow and expensive for surfing and video or phone calls, but the family can send and receive email. They update a blog at <missionarydoctors.blogspot.com>.

Through Olen and Danae’s medical mission work, the Bere hospital has become a referral center, with patients coming from all over Tchad and surrounding countries as well.

The couple has helped bring hope to the people, and built new relationships with the local staff and other missionaries. Olen says, “The best part about being in Tchad is knowing that I’m exactly where God wants me to be, and that I get to do it with my best friends in the world: my wife and kids.” **SCOPE**



Dr. Danae Netteburg (right) performs a surgery in the small operating room of Bere Adventist Hospital. ▲



Dr. Olen Netteburg reviews patient data before starting his day. ◀

The family has now added a new member— Zane. ▼





Pediatrician to a nation

Loma Linda alumna cares for the children of Laos
and helps to educate local pediatricians

Leila Srour, MD, MPH, sacrificed the easy life in coastal Santa Barbara to tax herself every day in rural Lao People's Democratic Republic. For nine years, she and her husband, Bryan Watt, have devoted themselves to improving health in Laos—especially child health.

"Bryan says we are parents to three million children in Laos," Dr. Srour says. And they look after them like their own.

As volunteers with the development organization Health Frontiers, Leila and Bryan's job descriptions defy brief summation. Responsible for the Muang Sing outreach program in Northwest Laos, they arrange medical care for countless children and adults who don't have means to procure it themselves. This sometimes means personally funding their health care or transporting rural patients to facilities where they can be treated. They founded and run a thriving child development center. They help children of special needs get an education tailored for their particular conditions.

And it doesn't stop there.

Dr. Srour additionally spends several days each week at the provincial hospital working with the staff pediatrician. To do so, she travels two hours by crowded bus—arriving at the station one hour early just to get a seat, which often has to be shared. On arrival, the needs of the children justify the inconvenience of the travel. In one recent week, the two pediatricians saw children with tuberculosis, malnutrition, biliary atresia, meningitis, intestinal obstruction, and multiple tropical infections, among others.

Dr. Srour also heavily supports the country's pediatric residency and continuing medical education programs. She bolsters clinical research and treatment of infectious and neglected diseases, including noma—a little-known gangrenous infection that destroys facial tissue. Dr. Srour reported the nation's first known case and brought it to the world's attention. She scours the country for patients who can be helped.

Tao Sone (front row, second from right in white tank top) developed severe lung disease and malnutrition after aspirating a foreign body. Dr. Srour (far right) helped him get treatment. His misfortune has become a boon for the young people of his poor village in Luang Prabang province, as it has led to the opening of a children's development center and a bicycle club that allows older students to reach the high school 10 kilometers away. ◀

"The disease is a biological indicator of the severity of public health conditions for children," she points out.

When not doing all these aforementioned things, Dr. Srour lobbies against illegal, misleading marketing by formula companies that is contributing to infant malnutrition.

Leila and Bryan are motivated by the slow but steady progress that they see—watching deaf children learn to communicate through sign language, seeing a child with tuberculosis get well, and recognizing the professional development of the physicians with whom she has spent years working.

"The brightness in the eyes of a child who completes a book, a picture, a puzzle," Dr. Srour further describes her rewards. "A child with a prosthesis, a blind child, a poor girl, all who can attend school when, without our help, they probably would not have the opportunity."

For their first two years in Laos, Leila and Bryan lived in the capital, Vientiane. They later chose to move to far Northwest Laos to Muang Sing, located in the Luang Namtha province very close to the Chinese border.

"We wanted to help the children where the needs are greatest," Dr. Srour says. "The disparity between Vientiane and the countryside continues to grow. Most Lao children live in rural areas, so we experience their true situation."

The situation is dire, and not only in terms of rampant and varied health problems often brought on by poverty. Children's educational needs are also unmet, which Leila and Bryan are trying to fill through the Butterfly Children's Development Center (as named by the kids).

The center grew from their encounter with a girl who had a severely burned hand. With her parents gone to look for work in distant fields, the child needed someone to help with her painful follow-up care. Leila and Bryan opened their home and took on this role.

"We asked her to bring a friend," says Dr. Srour. "After months of treatment, the children kept coming. We started a library, brought used puzzles and games from abroad and from Lao when we could find them. My good friend, a social worker in Vientiane, helped the children to name and organize the center. We have had support from social workers, volunteers, artists, teachers, doctors, and friends."

They offer activities designed to encourage child development, drawing on principles established by the United Nations

Convention on the Rights of the Child. The center was located in Leila and Bryan's home for its four years. But after they raised money to build a new school, the kindergarten now doubles as home to the center.

After school, on weekends, and during school holidays, children come to the center for a safe place to play and learn, including activities such as reading, drawing, puzzles, games, singing, dancing, recycling, gardening, and sewing.

Often children begin school with multiple disadvantages, according to Mr. Watt. Many don't know the official Lao language, many have parents who never went to school, and many don't have a single book in their home. In school, teachers are not able to provide the individual attention to the students that they need.

As one way of supplementing the children's learning, Mr. Watt refurbished old laptops and installed educational games at the center in order to provide students with the repetition and reinforcement needed to fuel their learning.

"Computer games such as puzzles and Sudoku help to develop critical thinking skills, spatial relationships, memory, and problem-solving strategies," he says. "Typing games teach the Lao



Dr. Srour encourages engrossment in art projects at Butterfly Children's Development Center, which she founded with her husband, Bryan Watt. ▲



The children of Muang Sing village attend school in a new building for which Leila and Bryan raised the money.

and Latin alphabets. Several children working together on computers foster teamwork and cooperation.”

Bryan and Leila work closely with the children to ensure they are getting the most benefit out of the technology. For Bryan, it is most gratifying when a child wants to focus on math skills.

“The secret to our accomplishments is that we are always working toward the top,” Mr. Watt says. “But unlike the domi-



Learning becomes fun on the computers Bryan Watt installed at the Butterfly Children’s Development Center. “All of the software we have is educational,” he says, “but it’s the most gratifying when a child tells me ‘I want to learn math.’” ▲

nant paradigm, we define the top to be what most consider to be the bottom.

“When this shift occurs, the children and their families are suddenly viewed with more respect, dignity, empathy, and compassion. They are our leaders, co-workers, and participants instead of recipients or beneficiaries. They do not exist for others to benefit from. And most importantly, this perspective puts all of those we help above us.”

In doing so, Leila and Bryan have come to admire the resourcefulness of the children.

“When we share a small piece of paper, a pencil, crayon, or book with these children and see their faces light up, we understand how limited their resources are,” Dr. Srou adds. “We see them climbing trees to find fruit, fishing for tiny fish in a drainage ditch, young children caring for younger children, building their own toys from nature and trash they find. These children are the future of the country.”

Of course, children will never make it to the center if poor nutrition leads to their sickness or death. That’s why Dr. Srou devotes a big part of her time to fighting baby formula marketing practices that lead to malnutrition. Though breast milk has proven the most nourishing food a baby could have, many formula companies have persuaded Lao mothers otherwise.

“I have seen children die with severe malnutrition due to the use of inappropriate breast milk substitutes,” Dr. Srou states. “Parents are misled that formula milk is better than breast milk. Formula advertising claims these products improve intelligence and immunity. Breast feeding is the number one intervention to



The Butterfly Children's Development Center, started in the couple's home, now meets in the kindergarten classroom. ▲

save children's lives."

Even many doctors promote formula brands after receiving incentives from company representatives, Dr. Srour says. She does her best to stop these corporations in several ways. She reports violations of the International Code of Advertising of Breast Milk Substitutes to the governing Infant Baby Food Action Network. She has participated in research and published journal articles that expose the problem. She and others have even directly approached corporations.

In her role as pediatrician, Dr. Srour not only sees patients alongside physicians in various hospitals and supports clinical research efforts, but she has also helped foster a system that ensures there will be well-trained Lao pediatricians throughout the country.

In 1997, five years before Leila and Bryan's arrival, Health Frontiers helped begin the nation's first pediatric residency program. In 2001, a residency in internal medicine followed. During their time in Vientiane, Leila focused on working with these resident pediatricians and internists.

Today, more than 60 pediatricians have graduated from the pediatric residency.

After two years in Vientiane, Dr. Srour realized the need for the pediatric graduates to have access to even further training throughout their careers. So she began the nation's pediatric continuing medical education program, which she continues to support from her rural home in Muang Sing.

"The goal is to fund the program without conflicts of interest—i.e., no support from formula companies," she says.

With Dr. Srour's help, Lao pediatricians have formed a

working group that plans national continuing medical education conferences. Next year will be the eighth such event. But the program also supports Lao pediatricians to connect with international events.

This summer, for example, the program funded 10 pediatricians to attend a conference at Khon Kaen University in Thailand.

Additionally, the pediatricians of Laos have caught the attention of the International Pediatric Association. "The leaders of the association have taken a special interest in the Lao physicians, and we appreciate their support," says Dr. Srour.

Last year, she and two Lao doctors attended the International Pediatric Association conference in South Africa. During the conference, they were able to attend a workshop that brought together similarly challenged pediatricians from developing countries around the world, such as Haiti, Nigeria, and Pakistan.

Internet access is limited in parts of Laos. Furthermore, English is a second or third language for the country's pediatricians. Knowing these challenges, Dr. Srour acts as an agent of sorts, linking the physicians to opportunities for supporting programs and grants. Recently, for example, she encouraged and offered her support to two doctors applying for a grant to fund events coinciding with World Pneumonia Day on November 12.

Dr. Srour earned her medical degree from Loma Linda University in 1978. The university motto, "to make man whole," influenced her approach to forming relationships with those she treats. "I was prepared to take care of people, not just patients," she says.

When she returned to Loma Linda University to study public health, her interest in prevention and international health was



Bryan Watt bought irrigation tubing for the village children to fashion into hula hoops when a visiting pediatrician—who also happened to be a hula hooping specialist—taught the kids how it’s done, including a blind child. Mr. Watt’s wife, Dr. Srou, is by his side. ▲

sparked once more. Though Dr. Srou had spent three months as a medical volunteer in remote Thailand during medical school days, after residency her career remained domestic. She spent 16 years practicing pediatrics in Santa Barbara.

In 2001, Dr. Srou graduated with a master of public health degree. The same year, she contacted Loma Linda University President Richard Hart, MD, DrPH, to inform him that she wanted to learn more about issues in the developing world. He arranged to send her to Mugonero Hospital in western Rwanda for one month. Working alongside the Rwandan doctors changed her life.

“I tried to return to my comfortable life in Santa Barbara, but I could not forget the suffering and lack of resources I had experienced,” she says.

Dr. Hart describes it similarly. “Leila was so moved by the needs, she returned, quit her practice, and started planning a career in development,” he remembers.

She and Bryan, who is also an engineer and professional photographer, connected with Health Frontiers and moved to Laos in 2002. The same year, she earned another master’s degree, fittingly, for their new location, in tropical medicine and hygiene

from the London School.

Loma Linda University graduates inherently feel the desire to create good in the world, whether they work in the United States or abroad, Dr. Hart says.

“When Leila first contacted me about wanting to move out of her comfortable pediatrics practice in Santa Barbara, I recognized a strong urge to ‘cure the world,’ as we say,” Dr. Hart remembers. “Living in a rural area with minimal support, she has single-handedly taken on the challenge of training pediatricians for the country of Laos.

“What a challenge! What a commitment!” Dr. Hart reflects. “Leila embodies the compassion and humanitarian spirit that make Loma Linda what it is today.”

As for herself, Dr. Srou misses family and friends back home. But she believes she’s where she should be.

“I feel like I am spending my time and resources helping people in need—the right thing for me,” she says. “I have seen progress, but it is slow. I think fostering human development requires a long-term commitment. Every year gets better!” [SCOPE](#)

[<www.healthfrontiers.org>](http://www.healthfrontiers.org)

[<www.butterflychildren.org>](http://www.butterflychildren.org)



Young children often bear the responsibility of caring for the even younger children. Some girls are unable to attend primary school because they must look after their siblings. Bryan Watt, who took this picture, is a skilled photographer and documentarian of life in Laos. ▲



‘Honey, let’s move to Africa’

A Loma Linda alumna and her husband consider Malamulo Hospital

Moving is difficult enough when one is just packing up and moving down the street to a new home. Daniel and Danielle Mason will be moving to Malawi sometime around the end of the summer of 2012.

The Masons will be leaving behind everyone and everything they know as they set out on an adventure into the unknown.

Danielle Mason, MD, is a member of the obstetrics and gynecology department at Loma Linda University, where she serves as a generalist. She graduated from Loma Linda University School of Medicine in 2005 and completed the obstetrics and gynecology residency at Loma Linda in 2009, before joining the teaching faculty. Daniel—or Dan, as he prefers to be called—is a high school biol-

ogy teacher at Norte Vista High School, in Riverside, California, completing his seventh year.

What made them decide to uproot their lives and head to Africa? After all, Danielle is a home-grown girl. Her mother, Dorita West, teaches junior high English at nearby Loma Linda Academy. Her father, Dale West, is a vice president for human resources at California State University, San Bernardino.

Dan grew up in Cleveland, Ohio, and attended Mount Vernon Academy, in Mount Vernon, Ohio. His oldest sister, Michelle, taught English for a year in Thailand. His younger brother, David, taught for a year at Carmel Adventist College—Primary, in Bickley, Western Australia. David went on to work with the Aborigines in Karalindi, then served in Papua New Guinea for seven years, before entering law school in Australia.

While family mission service may have served a small role in their initial interest, the Masons tell a different story about what really piqued their desire to serve abroad.

Daniel and Danielle Mason pause for a moment during a busy two weeks during which they visited Malamulo Hospital, in Malawi, where they will be spending the next five or six years—or longer. ▲



A series of events led them toward the decision to serve overseas. “Our church family was fasting and seeking God’s will,” she remembers. “We both had talked about serving overseas before we settled down and started a family.”

Danielle had the opportunity to join a short mission trip while in residency. During a “slow” 24-hour obstetrics call at Loma Linda University Medical Center, she was perusing her e-mails and came across an interesting one.

“A classmate of mine—Ryan Hayton—was working at Malamulo Hospital and had been sharing his experiences with us via e-mail,” she relates. “I read through three pages of his experiences and, when he signed off, he mentioned that the hospital really needed an obstetrician/gynecologist, and if I knew of anyone to please let him know.”

The thought hit her that going to Malamulo Hospital might be an answer to prayer. She immediately called Dan and he shared her enthusiasm, so she e-mailed Ryan and told him they were interested in the opening.

“Ryan advised us to talk to Dr. Hart,” Danielle remembers. Richard H. Hart, MD, DrPH, president of Loma Linda University, is deeply involved in mission service on many levels, since having served in Tanzania as a young physician. His involvement with Adventist Health International (AHI), an organization he founded some years back, also keeps him in touch with the needs of health care facilities around the world.

AHI provides management, leadership, and guidance to Seventh-day Adventist hospitals and other health care facilities which are, in many cases, struggling to survive. By strengthening the leadership and creating a strong financial footing for these hospitals,

Word spread that an obstetrician/gynecologist was on the premises and Danielle was immediately put to work. A backlog of surgeries and other obstetrics and gynecology-related procedures was a result of the hospital being without an obstetrician/gynecologist for three years. ►

AHI is able to help them turn around. Malamulo Hospital is a prime example of AHI’s successful intervention with struggling hospitals. The institution is now affiliated with Loma Linda University and provides an important international site for student and medical resident experiences.

“While we were sitting there talking to Dr. Hart, he got on the phone and started the process,” Dan describes. “Before we knew it, arrangements were made and we were booked on a flight to visit Malamulo for two weeks.”

As an added benefit, the Masons were able to talk with both Edward Martin, MPH, the incoming chief executive officer (CEO) at Malamulo Hospital, and Elisa Brown, MBA, the outgoing CEO, within the space of a week. Both happened to be visiting the campus of Loma Linda University.

“We were at Malamulo July 14 to 28,” Danielle details. “From the moment I arrived, I was already working.”

She was even able to attend Edward Martin’s first board meeting as the new CEO.

There had been no obstetrician/gynecologist at Malamulo for three years. Surgeries and other procedures were immediately booked for her.

“Malamulo is located in a rural area,” Danielle explains, “surrounded by tea plantations and unpaved roads.”

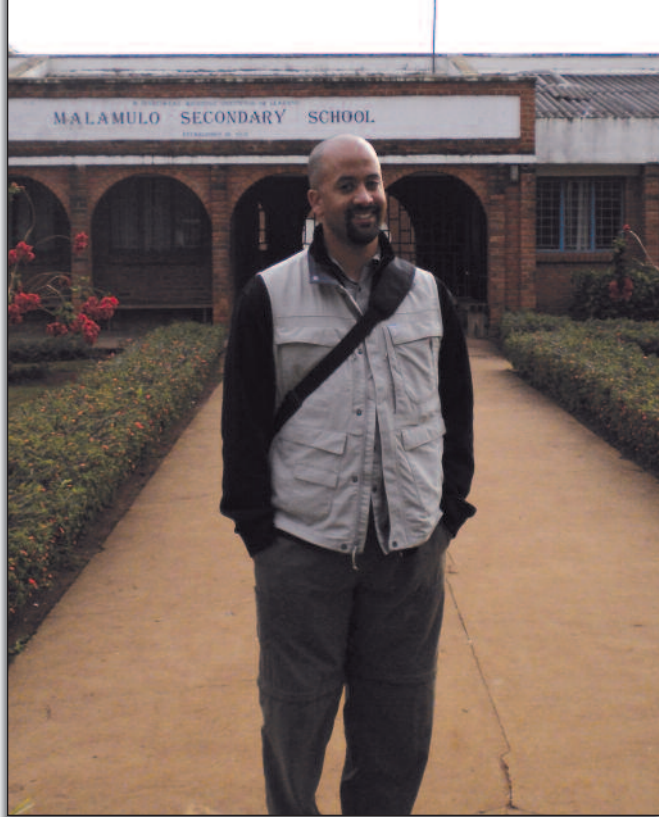
The hospital handles approximately 2,000 deliveries a year—primarily children of tea plantation workers and rural villagers. There is also a high incidence of HIV in the area.

In contrast, Dan found himself looking for activities to keep himself occupied.

“We didn’t have time for any safaris,” Dan recalls. “The area was in the midst of an oil crisis and gas was scarce, so we just stayed on the hospital campus.”

Local demonstrations were taking place in response to the gas shortage and other economic problems, making it dangerous





for the Masons to leave the hospital property unescorted.

"The extent of wildlife we saw was a monkey and goat," Dan laughs. The monkey was a pet belonging to the Hayton family, and the goat was probably someone's pet as well.

However, their experiences at Malamulo Hospital helped seal their decision to move there. "I was impressed by the spiritual emphasis and level of commitment there," Danielle points out. "Each department begins every day with worship, including devotionals, singing, and prayer."

Their decision to move to Malawi resulted in a flurry of activity upon returning home. They first applied to the deferred mission appointee (DMA) program, a joint venture between Loma Linda University and the General Conference of Seventh-day Adventists. Through this program, new physician and dentistry graduates are able to have their educational loans amortized—or paid off—while they serve overseas.

"We were latecomers to the DMA process," Danielle attests, "since most individuals apply to the program as medical students." However, the requirements were satisfied, and Danielle's medical school bills will be paid off in five to six years while the Masons serve at Malamulo.

A similar program to pay off educational loans in exchange for mission service is in place for Loma Linda University students from other health-care-related professions.

The Masons plan to move to Malawi sometime around the end of this coming summer (2012), following preparatory training at the Mission Institute, located at Andrews University, in Berrien Springs, Michigan.

"We finally have a little down time to let it all soak in," Dan confides. "We have so much to do—like selling our house and our

Dan Mason's role at Malamulo Hospital isn't as obvious. As the "trailing spouse," he is willing to serve wherever needed. With his background in education, Malamulo Secondary School may prove to be a good fit. ◀

A pet monkey (below) and someone's goat were the extent of the "wildlife" the Masons were able to see during their two-week visit to Malamulo Hospital in Malawi. ▼

cars—and saying good-bye to so many people."

Danielle agrees. "This represents a 180-degree change for us from life in the United States—and our heads are spinning."

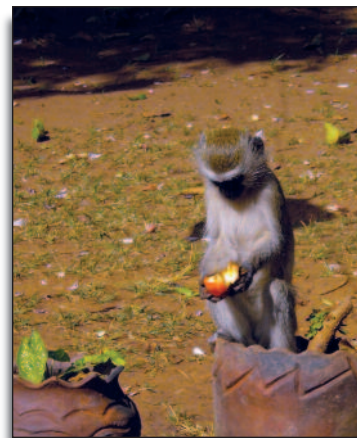
But they continue on, trusting that everything will work out for the best as they seek to serve God in new ways.

Danielle will be joining four other physicians at the hospital.

"The road isn't as clear for me," Dan admits. "I know it's the right thing to do, but I'm not sure exactly what I will end up doing at Malamulo."

He laughs, "In the mission field, you may find yourself doing a lot of things you didn't expect, but that's just part of the adventure."

With that philosophy, the Masons will do just fine. **SCOPE**





Breakthrough in breast cancer treatment

Proton radiation therapy provides a new and powerful alternative

During a routine checkup in 2008, Wanda Kirkman, a lively television host who lives in Tennessee, asked her physician to prescribe a mammogram. Wanda makes time to take care of her health in spite of her busy schedule—she also owns a beauty shop and works in the real estate business.

“After the mammogram,” she recalls, “I had barely reached the parking lot when they called to tell me something was wrong.” Wanda learned that the test had revealed a .25 centimeter lump in her breast.

“I decided to seek treatment at Vanderbilt first,” she says. “When I learned that I would need to have a lumpectomy, I decided to go through that part of my treatment in Nashville.” Following the lumpectomy, Wanda’s doctor asked her to schedule chemotherapy. “I knew instead,” she says, “what I was going to do. I wanted to go to the James M. Slater, MD, Proton Treatment and Research Center at Loma Linda University Medical Center.”

Speaking over the phone in late August 2011 from her home in what she calls a “sleepy little town in Tennessee,” Wanda is upbeat and cheerful. “Proton therapy,” she says, “is one of the best-kept secrets in the United States.”

Finding and choosing the best course of treatment can be challenging. Type the words “breast cancer” into an Internet search engine and in a fraction of a second, 13 million links appear. When the words “research” and “proton” are added to the search, the results are narrowed to 3.4 million. The James M. Slater, MD, Proton Treatment and Research Center at Loma Linda University Medical Center appears at the top of the list.

Wanda became the second person in her family to receive lifesaving proton treatment at Loma Linda University Medical Center. Her brother, Drexel, had completed proton treatment for prostate cancer at the urging of his son, a veterinary doctor in Florida. When asked how he had discovered proton therapy, Wanda is quick to reply: “He researches everything!” Drexel was so satisfied with the care he had received that he contacted Loma Linda on Wanda’s behalf.

Breast cancer is the second most common cancer among women—the first being skin cancer. Wanda became one of the one-in-eight women who will receive a diagnosis of breast cancer during her lifetime. In 2007, 202,964 women in the United States were diagnosed with breast cancer and 40,598 women in the

Because physicians are able to deliver a greater part of the total dose during each treatment for breast cancer, instead of the seven weeks required when traditional radiation is used, proton therapy can be completed in just two weeks. Here, Wanda Kirkman is positioned to receive one of the 10 treatments she had been prescribed. ◀

United States died from the disease.¹

Extensive research has revealed that women with early stage breast cancer who complete a combination of surgery and radiation therapy experience outcomes similar to those who undergo extensive surgical procedures, including mastectomy.

"Surgery and radiation therapy," says David A. Bush, MD, vice chair, department of radiation medicine, "play complementary roles in the treatment of early-stage breast cancers." However, traditional radiation is not without risks. It may cause side effects when it penetrates, and damages healthy tissue including the skin, heart, and lungs. In 2003, Loma Linda researchers designed a study that would replace traditional radiation with proton therapy.

Their landmark research study, "A technique of partial breast irradiation utilizing proton beam radiotherapy: comparison with conformal X-ray therapy,"² was published in *Cancer Journal* in 2007.



At the time Wanda sought treatment at Loma Linda University Medical Center, researchers were enrolling patients in a follow-up clinical trial. After learning that she was a good candidate, Wanda agreed to join the study.

History

Twenty-one years ago, Loma Linda University Medical Center became the first hospital to offer proton radiation therapy to treat prostate, brain, and other types of cancer. To date, more than 15,000 patients have received treatment at the James M. Slater, MD, Proton Treatment and Research Center.

"With proton beams, we are able to precisely target the specified treatment area," says Dr. Bush, "significantly reducing the size of the radiation area and sparing healthy tissue. Proton treatment is less risky than conventional radiation treatment, as it lessens radiation exposure to the heart, lungs, and other parts of the body."

Wanda completed 10 proton treatments. "I never felt any side effects," she says. "The first day, before treatment began, I had to lie still for more than an hour so they could determine where the proton beams should go, but that was the only discomfort I felt."

Results of the study that Wanda participated in appear in the August 2011 issue of the scientific journal *Clinical Breast Cancer*.³ She has remained cancer-free. Study results show that disease-free survival rates at five years for patients in the study were more than 90 percent, while overall survival rate was close to 100 percent.

"Proton therapy for breast cancer is not only less risky," says Dr. Bush, "but the treatments can be completed in less time. This is because we are able to deliver a greater part of the total dose during each treatment—instead of the seven weeks required when traditional radiation is used, proton therapy can be completed in two weeks."

Wanda is ecstatic about her experience. "The nurses, doctors, and staff at Loma Linda are committed to what they do." She adds, "At Loma Linda, people really care." SCOPE

Note: The above referenced clinical trial received financial support from the James M. Slater, MD, Endowed Chair and the David and Linda Shaheen Foundation.

¹ www.cdc.gov/cancer/breast/statistics/

² www.nlm.nih.gov/medlineplus/breastcancer.html

³ www.clinical-breast-cancer.com/article/P11S152682091100053X/abstract

Joseph Contreras and Wanda Kirkman stand beside the pod that had been created to position her for proton treatments for breast cancer. Her treatment complete, the pod has been boldly emblazoned with the word "DONE." ◀

The renewal of a residency program

A major gift breathes new life into the department of family medicine

The expression “pay it forward” has often been used to describe the idea of showing one’s gratitude for personal good fortune by ensuring that others can experience similar opportunities in the future.

Mark Keltner, MD, member of the class of 1950, so appreciated the quality of his medical training at the College of Medical Evangelists, precursor to Loma Linda University, that he chose to pass on his good fortunes at Loma Linda to those family medicine residents who would follow in his footsteps.

“Dr. Keltner wanted to ensure,” notes Albin Grohar, PhD, executive director of philanthropy at Loma Linda University, “that future generations of student physicians continue to receive the same quality of medical education he enjoyed as a student of family medicine here in the late 1940s and early 1950s.”

He and his wife, Helen Titus Florsheim Keltner, generously donated \$1.5 million in 2002 to establish the Mark R. Keltner, MD, Professorial Chair in Family Medicine in the School of Medicine’s department of family medicine.

Helen died a short time later. When Mark passed away at the ripe old age of 95 in May of 2009, he bequeathed an additional \$10.4 million to the department of family medicine. The grand total of his gifts—\$11.9 million—set a new record at Loma Linda University for philanthropy from an individual.

“The Keltners’ gifts mark the university’s philanthropic history in the first decade of the 21st century in a special way,” Dr. Grohar maintains. “They have renewed the department of family medicine and the university through their generosity.”

John K. Testerman, MD, PhD, chair of family medicine in the Loma Linda University School of Medicine, believes that Dr. Keltner’s legacy will continue to be felt for decades to come.

“Dr. Keltner got off to a rough start in life,” Dr. Testerman shares, “but he was forever grateful to Loma Linda University for the medical education he got here.”

Dr. Testerman adds, “He wanted to give back out of his deep sense of gratitude that things turned out as well as they did.”

Mark Keltner’s life did have a challenging start. Born in Seattle, Washington, on August 9, 1913, little Mark was orphaned at the age of 3 when his father returned from the Yukon Territory with a case of advanced tuberculosis and died. His sister moved to California to live with their grandmother, while Mark moved in

with Charles and Margaret Rudolph, a Seventh-day Adventist family living in Bellevue, Washington.

Mark’s new family raised him in what he described as “a loving and nurturing environment” and treated him, as he would later say, “like one of their own.” Life on the Rudolph family farm instilled a sense of the value of hard work and determination, which would serve him well throughout his life and career.

“The Rudolph home was a great place for kids to grow up,” Dr. Keltner recalled at the time he was presented the University Distinguished Humanitarian Award during Loma Linda University School of Medicine graduation ceremonies in 2001.

During his speech, Dr. Keltner told the graduating class that the Rudolph family provided all the essentials necessary for a growing boy. There was “plenty of food, other children with whom to play, and abundant wildlife from which to learn,” he remembered.

As he grew older, Mark was encouraged by the Rudolphs to



Mark R. Keltner, MD ▲



Mark and his wife, Helen Titus Florsheim, established the Mark R. Keltner, MD, Professorial Chair in Family Medicine in 2002 with a gift of \$1.5 million. ◀

consider medicine as a career. Toward that end, he enrolled in Auburn Academy at the age of 13 or 14 and threw himself into the challenge of mastering his studies. Besides applying himself to academics, the ambitious young scholar financed his secondary education and living expenses by working with saws, planers, and shapers in the school's woodshop.

After graduating from the academy "with all fingers intact," Mark enrolled in Walla Walla College (now Walla Walla University) to take pre-medicine classes.

Things didn't go as planned. With inadequate financial reserves to meet expenses, the future Dr. Keltner left the Northwest after a year of college and hitchhiked to Los Angeles, where he found work as an orderly at Los Angeles County General Hospital.

By "pinching pennies" and applying considerable drive, energy, and initiative to the challenge, Mark advanced toward the goal of becoming a physician. Working all day and attending not one, but two separate academic programs at night, he graduated as both a laboratory and x-ray technician at the same time.

Following a two-year interruption to serve his country in the armed services, the refocused Mark Keltner once again enrolled in pre-medicine classes—this time at La Sierra College (known today as La Sierra University).

On October 7, 1945, upon completing his undergraduate studies, he was admitted by Chester Fink, registrar of the school,

into the freshman medical class at the College of Medical Evangelists—renamed Loma Linda University in 1961.

Graduating January 3, 1950, Dr. Keltner moved to Los Angeles for an internship at White Memorial Hospital (known today as White Memorial Medical Center).

The City of Angels turned out to be a welcoming place for an up-and-coming young physician committed to the highest ideals of his profession. First, it brought Dr. Keltner into contact with William D. Engeberg, MD, a fellow alumnus and member of the class of 1949, whom he described as "the best doctor in town." The respect must have been mutual because the two men soon established a professional partnership that would span the entire length of their medical careers.

Second, it provided him with a lifelong soulmate in the person of Helen Titus Florsheim, with whom he fell in love and married.

With offices in Los Angeles and Beverly Hills, the partnership became a thriving medical enterprise that flourished for decades. According to the California Medical Association (CMA), Dr. Keltner was a member of that organization for 30 years, and an article in a 1971 edition of the *Western Journal of Medicine* places him among 91 Los Angeles County physicians appointed to the CMA House of Delegates that year.

The generous gift from Dr. Keltner's estate, according to Dr. Testerman, is being used in a number of significant ways, including the development of a demonstration clinic as a practice and teaching model where Loma Linda University's mission, "to make man whole," can be implemented in concrete and innovative ways.

"We are determined to set a new standard of excellence in patient service and quality of care," Dr. Testerman notes. "We've chosen to adopt the patient-centered medical home as our practice and teaching model."

Dr. Keltner's aura and appearance often made an impression on people who met him. "He was tall, strong, and good-looking," Dr. Testerman remembers. "I had the chance to meet him on two occasions. About 2006, I went down and visited him at the country club in Beverly Hills. Although we didn't play, I understand he was a very good golfer even though he was more than 90 years old at the time."

His generosity has also made a lasting impression. With his help, the Loma Linda University School of Medicine's department of family medicine will have the resources required to continue educating Christian physicians for decades to come. **SCOPE**



Living longer and better

Researchers receive additional funding to study the Adventist lifestyle

Adventist Health Study-2 (AHS-2) researchers experienced Christmas in July when, after three years of operating in large part from the support of Loma Linda University, they learned they were awarded a \$5.5 million grant from the National Institutes of Health (NIH).

"With the health economic climate in the U.S. government, including NIH, we had been advised the grant probably wouldn't happen," says Richard Hart, MD, DrPH, president of Loma Linda University. "The fact that it finally came is a great validation of the study."

AHS-2 is a long-term health study of more than 96,000 Seventh-day Adventists from the United States and Canada. The study began in 2002 with grants from the NIH and other agencies with the purpose of examining the links between lifestyle, diet, and

disease. The study has been without NIH funds for the past three years, but it has received other funds and grants, as well as significant support from Loma Linda University, where it is based.

"We are extremely appreciative of the university, which has played a key role in keeping the study going more recently," acknowledges Gary Fraser, MD, principal investigator of the study. "We had received an excellent priority score at NIH after we had applied for new funding, but this is a large study, and in these difficult fiscal times, major funding is much more difficult to secure."

The new funds come from the National Cancer Institute, a division within NIH, and will be used for analysis of cancer.

"We're delighted by this outcome," Dr. Fraser attests. "This will not only allow us to conduct our ongoing functions, but to conduct them more efficiently, and to begin analysis on parts of the

Seventh-day Adventist Church members David Goudeau and his daughter, Paris, age 6, plant tomatoes at the 16th Street Seventh-day Adventist community garden in San Bernardino, California. ◀

cancer project that we have had to shelve. It will also free other resources to support the critical task of identifying and training younger investigators who will ensure the future of this line of research at Loma Linda.”

While previous Adventist Health Studies answered affirmatively to the question “Do Adventists live healthier and longer?” AHS-2 is asking the question “What do Adventists do that can be shared with non-Adventists?”

“These are health practices that the nation can learn from Adventists, which can then feed into the national health plan for the country,” Dr. Hart suggests.

Already AHS-2 has published results that have gained international recognition, although it is still at an early phase of analysis and publication. Below are highlights of some of the most recent research.

Diet and lifestyle disease

One of the advantages of studying Seventh-day Adventists is that they have a range of dietary habits. Some are vegan, some are vegetarians who eat dairy, some are semi-vegetarian (eating meat less than once per week), and a little less than half are non-vegetarian. This means researchers can examine the effects of varying levels of meat intake on lifestyle diseases.

So far, AHS-2 has determined there is indeed a correlation between the different diets practiced and disease prevalence.

AHS-2 research showed that vegetarians experience a 36 percent lower prevalence of metabolic syndrome than non-vegetarians. Because metabolic syndrome can be a precursor to heart disease, diabetes, and stroke, the findings suggest that vegetarians may be at lower risk of developing these conditions.

The study found that while 25 percent of vegetarians had metabolic syndrome, the number significantly rises to 37 percent for semi-vegetarians and 39 percent for non-vegetarians. The results hold up when adjusted for factors such as age, gender, race, physical activity, calories consumed, smoking, and alcohol intake.

“I was not sure if there would be a significant difference between vegetarians and non-vegetarians, and I was surprised by just how much the numbers contrast,” confesses Nico Rizzo, PhD, lead author for the research and an AHS-2 fellow. “It indicates that lifestyle factors such as diet can be important in the prevention of metabolic syndrome.”

USDA-funded community garden impacts neighborhood

In an effort to give back and emphasize healthy living, Adventist Health Study-2 has started a community garden at the 16th Street Seventh-day Adventist Church in San Bernardino, California, with plans to begin gardens at five other local churches over the next four months.

Several members at the 16th Street Seventh-day Adventist Church are AHS-2 study members. Although the areas surrounding the 16th Street Church frequently face gang violence, theft, and vandalism, members are using the garden as a way to reach out to their neighbors by sharing the love of Christ and increasing awareness of a healthy lifestyle. AHS-2 and the 16th Street Church send a special thanks to Gerhard Steudel, director of landscape for Loma Linda University, for providing all setup services for the garden.

In addition, Loma Linda University public health graduate students are recording a step-by-step process for starting a garden that can be repeated in any church. The garden project is funded by a grant from the U.S. Department of Agriculture aimed at bringing health education to the black and Hispanic/Latino communities. To learn how to start a community garden at your church, e-mail Patti Herring at <pherring@llu.edu>.

Diet and disparities

The fact that the results described held even when controlling for race is particularly relevant, and especially at this time in history. It is well-documented that in the United States, one minority group in particular—black/African Americans—suffers disproportionately from obesity, high blood pressure, cancer mortality, lower life expectancy, and other conditions.

However, AHS-2—one of the largest studies of blacks, with 26,000 black Adventist participants—has revealed that black, as well as non-black, Adventists experience a higher mental and physical quality of life than the general population in the United States (see graph on next page).

AHS-2 researchers attribute this difference to the healthy lifestyle behaviors built into Seventh-day Adventism. Compared to non-Adventists, rates of smoking, drinking, and meat consumption for Adventists were lower, and rates of vegetarianism and water consumption were higher. In addition, about 95 percent of the males and females in the black study cohort attended church weekly or more often, as compared to 30 percent of black males and 50 percent of black females in the General Social Survey—a survey routinely conducted on a sample of the entire U.S. by the National Opinion Research Center.

AHS-2 is also examining whether there are lifestyle-related subgroups of black Adventists who may not suffer from certain health disparities. So far, consuming less or no meat appears to be one of the key behaviors associated with better health. Of the black Adventist participants, those with a plant-based diet weigh less, have a lower BMI, and have less prevalence of hypertension and high cholesterol compared to non-vegetarian black Adventists. These results were also true for the non-black participants.

Specifically, those following a vegan diet weighed on average 25 to 30 pounds less than those following a non-vegetarian diet. In addition, compared to non-vegetarians, vegans had a BMI three to five points lower, had more than 50 percent reduced prevalence of high cholesterol, and had a 50-to-80-percent reduced risk of hypertension.

“With these results in mind, trending toward a plant-based diet is a sensible choice for everyone,” Dr. Fraser indicates.

Diet and a cancer precursor

AHS-2 is also interested in learning what specific foods or food groups are associated with lower risk of cancers, although its main analyses are still two to three years away. Researchers who examined participants from both Adventist Health Study-1 (in 1976) and AHS-2 found that four foods/food groups stood out as protective against colon polyps, a precursor to colon cancer. These were: cooked green vegetables, brown rice, dried fruit, and legumes.

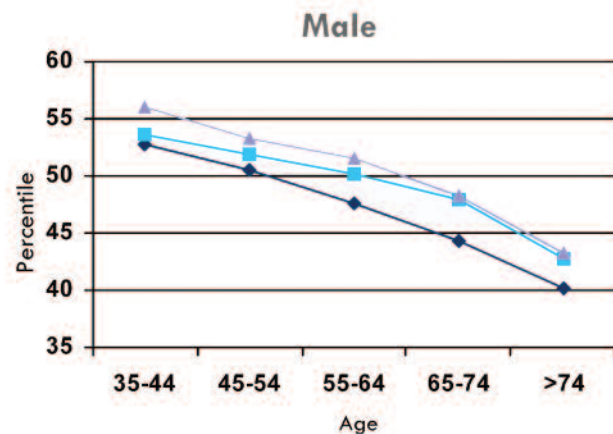
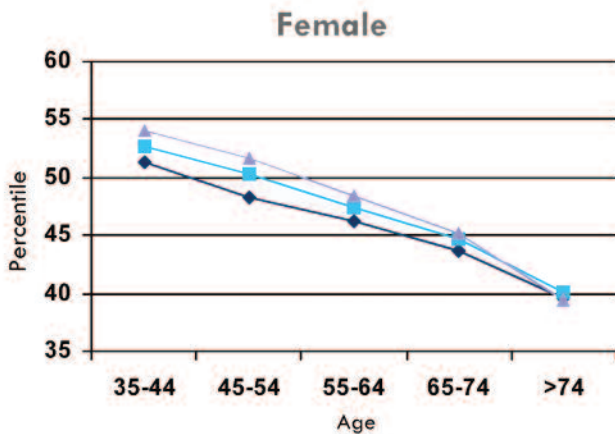
“Eating these foods is likely to decrease your risk for colon polyps, which would in turn decrease your risk for colorectal cancer,” confirms Yessenia Tantamango, MD, a post-doctoral research fellow with AHS-2, who led this particular study.

Colon cancer is the second leading cause of cancer death in the United States and the third most common cancer in both men and women, according to the American Cancer Society.

The study showed that eating legumes at least three times a

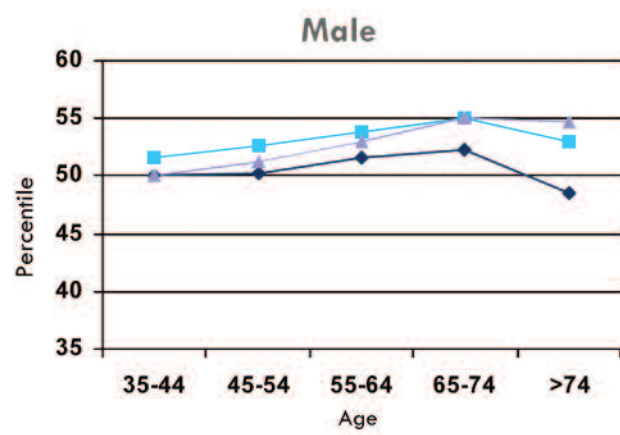
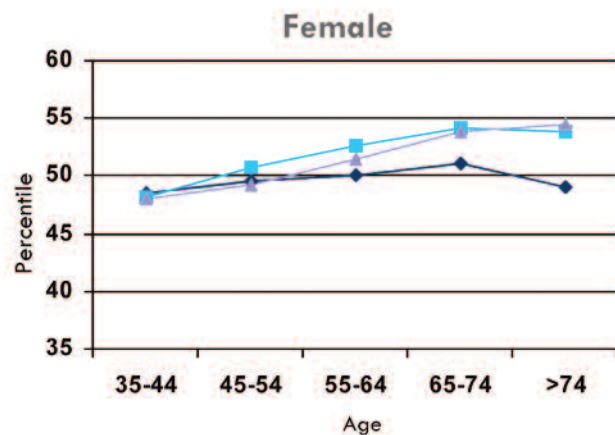
Perceived Physical Quality of Life

■ = Black Adventist ▲ = Non-Black Adventist ◆ = U.S. Norm



Perceived Mental Quality of Life

■ = Black Adventist ▲ = Non-Black Adventist ◆ = U.S. Norm



week and brown rice at least once a week was linked to a reduced risk of colon polyps by 33 percent and 40 percent respectively. In addition, consuming cooked green vegetables once a day or more, as compared to less than five times a week, was associated with a 24 percent reduction in the risk of rectal/colon polyps. Consuming dried fruit three times a week or more, versus less than once a week, was associated with a 26 percent reduced risk.

The protective effects of these foods could be due in part to their cancer-fighting agents, Dr. Tantamango reasons.

“Legumes, dried fruits, and brown rice all have a high content of fiber, known to dilute potential carcinogens,” Dr. Tantamango elaborates. “Additionally, cruciferous vegetables, such as broccoli, contain detoxifying compounds, which would improve their protective function.”

Looking ahead

As investigations move forward, Loma Linda University School of Public Health Dean Tricia Penniecook, MD, MPH, notes the new funding is a “generous harvest” that adds to the continuation of the school’s mission.

“It means that School of Public Health’s signature contributions to public health through lifestyle science can continue to be the foundation of transformative whole-person health and care,” Dr. Penniecook conveys. “It also means that we have a great responsibility of sharing what is confirmed and discovered with the world, from the most respectable scientific peer-reviewed journals, to the mother in San Bernardino County wondering how to raise healthy kids.”

History of the Studies

The Adventist Health Studies consist of three main studies and two substudies. Detailed descriptions of each study, as well as links to abstracts of each study’s scientific publications, can be found at adventisthealthstudy.org.

The first main study, the Adventist Mortality Study, was conducted from 1958 to 1966 with 23,000 California Adventists and revealed that compared to other Californians, Adventists experienced lower rates of death for all cancers.

Adventist Health Study-1 (AHS-1), which examined 34,000 California Adventists, was conducted nearly a decade later, from 1974 to 1988. It revealed California Adventists live longer than other Californians. It also showed that five simple health behaviors promoted by the Adventist Church for more than 100 years increase lifespan by up to 10 years. These were: not smoking, eating a plant-based diet, eating nuts several times per week, regular exercise, and maintaining a normal body weight.

In 1976, the Adventist Health Air Pollution Study emerged as a substudy of AHS-1 and was funded by the Environmental Protection Agency. Still ongoing, its purpose is to link the effects of various indoor and outdoor pollutants with respiratory diseases and lung cancer.

The current study, Adventist Health Study-2, has linked a vegetarian diet to lower risk of high cholesterol, diabetes, and high blood pressure. Its aim is to continue to monitor its 96,000 subjects over the next 15 to 20 years and determine what foods prevent cancer and other diseases.

Finally, a substudy of AHS-2, the Adventist Religion and Health Study, is examining the effects of religion on health. One main finding is that Adventists report better physical and mental quality of life than non-Adventists. **SCOPE**



A fraction of the many harvests of the 16th Street Seventh-day Adventist community garden stays cool in the shade on a hot summer day. Included are squash, tomatoes, green beans, and cucumbers. The garden is a 10,000-square-foot piece of land adjacent to the church, boasting 25 10-foot-by-10-foot plots, fruit trees, and a prayer wall. Each plot has a mixture of fruits, vegetables, flowers, and herbs.



University celebrates 1,335 new alumni

Graduation ceremonies take place over two May and June weekends

During eight commencement ceremonies spanning the weekends of May 29 and June 12, 2011, a total of 1,335 graduates crossed the stage to receive their diplomas, cheered on by family, friends, classmates, and faculty as they became Loma Linda University's newest alumni.

Eighty-seven countries, including the United States, were represented by the graduates.

Ceremonies for the Loma Linda University School of Medicine, School of Pharmacy, and School of Dentistry were held on May 29 on the central campus mall, west of the School of Dentistry's Prince Hall and east of Loma Linda University Church.

The remaining ceremonies took place June 12 at Loma Linda University Drayson Center. Commencement ceremonies were held for the School of Science and Technology, as well as the School of Religion, first thing on Sunday morning. Ceremonies followed throughout the day for the School of Nursing, the School of Allied Health Professions physical therapy programs, the rest of the School

of Allied Health Professions, and the School of Public Health.

Nine individuals were honored by Loma Linda University for their service and contributions to the university and/or in other arenas. Each of the schools honored an additional 14 individuals for their contributions academically and professionally.

During the School of Medicine graduation ceremony, the 10,000th medical school graduate crossed the stage, representing the most graduates of any medical school in Southern California and placing the school among an elite few in the nation (*more on this story later in the article*).

The School of Medicine commencement speaker was Scott C. Nelson, MD, assistant professor in the department of orthopedic surgery, School of Medicine, who addressed the topic "A New Era of Service."

Dr. Nelson was serving in the neighboring Dominican Republic just prior to the major earthquake in Haiti.

He spent six months in Haiti immediately following the



Scott C. Nelson, MD
... *Medicine*



Lucinda L. Maine, PhD
... *Pharmacy*



Chester W. Douglass, DMD, PhD
... *Dentistry*

G. Gordon Hadley, MD (center), receives congratulations from Richard H. Hart, MD, DrPH (right), president of Loma Linda University, and H. Roger Hadley, MD (left), his nephew and dean of the Loma Linda University School of Medicine. Dr. Hadley was recipient of the Loma Linda University Adventist Health Sciences Center Lifetime Achievement Award. ◀

earthquake, serving at Hopital Adventiste d'Haiti, the Adventist hospital located in the capital of Port-au-Prince, where he helped to organize a national orthopedic referral hospital that continues to serve victims of the earthquake.

Speaking to 58 School of Pharmacy graduates was Lucinda L. Maine, PhD, CEO and executive vice president of the American Association of Colleges of Pharmacy. She also currently serves as president of the Federation of Associations of Schools of the Health Professions. Her topic was "Discerning Our Path Forward."

As a published researcher, her research interests include aging, pharmacy manpower, and pharmacy-based immunizations.

Addressing 201 School of Dentistry graduates was Chester W. Douglass, DMD, PhD, whose distinguished career has helped to advance oral health education excellence, translational research, and exemplary patient care and service. He talked about "Successful Dental Practice in a Changing World."

Dr. Douglass currently chairs the DentaQuest Foundation board of directors and is an alumnus of the Robert Wood Johnson Health Policy Fellowship program. From 1979 to 2009, he served as chair of the department of oral health policy and epidemiology at the Harvard School of Dental Medicine.

Jesse Harris, PhD, MSW, dean emeritus and professor at the School of Social Work, University of Maryland, Baltimore, addressed the question "How Will Your Next Chapter Read?" for 137

graduates from the Loma Linda University School of Science and Technology, and seven graduates from the School of Religion.

Dr. Harris began his career as a U.S. Army social worker and served for more than three decades in that capacity, which culminated in an appointment to chief of social services and consultant to the Army Surgeon General.

He retired from the military in 1990 with the rank of colonel, joining the faculty in the School of Social Work at the University of Maryland, Baltimore. A year later, he took over as dean of the school, where he served for the next 15 years. During that time, he introduced new curricula, as well as innovative community service opportunities—such as the Social Work Community Outreach Service which allowed faculty and students to target the needs of some of Baltimore's most underserved communities.



Family and friends of Roy Poblete, MD, ensure there are no questions as to which graduate they're cheering for. ▶



Jesse Harris, PhD, MSW
... *Science and
Technology/Religion*



Nancy E. Donaldson
DNSc, MSN
... *Nursing*



Eric G. Walsh, MD, DrPH
... *Allied Health Professions*



Chris Blake, MA
... *Public Health*

School of Nursing graduates, numbering 197, heard Nancy E. Donaldson, DNSc, MSN—founding director of the University of California, San Francisco's (UCSF) Stanford Center for Nursing Research & Innovation, and clinical professor in the UCSF School of Nursing department of psychological nursing—present the topic “Transformation in Action” during their graduation.

For close to two decades, Dr. Donaldson has made important professional contributions as a nurse researcher embedded in clinical practice, with an investigative focus on translational research and evidence-based practice capacity development.

Eric G. Walsh, MD, DrPH, medical director for the Pasadena Public Health Department, gave an address titled “Peeking Into the Promised Land” during both the physical therapy and general School of Allied Health Professions commencements.

The relationship of health disparities to allostatic load—the cumulative biological burden exacted on the body as a result of attempts to adapt to life's burdens—is an area of research interest to Dr. Walsh, who shares his findings through professional publications and presentations.

The final graduation speaker for the day, Chris Blake, MA, associate professor of English and communication, Union College,

Lincoln, Nebraska, spoke on the topic “Creating the Future of Public Health.”

In 1986, Mr. Blake became editor of the Review and Herald Publishing Association's *Insight* magazine, overseeing 400 issues during his seven-year tenure. He has won national awards as an editor and writer through the years. In addition, he developed *Youth Summits*, produced special issues such as “The Jesus Series,” helped conceive Maranatha's annual “Ultimate Workout for Teens,” and directed Darrel Tank's “Expressions of Jesus” prints.

School of Medicine graduates 10,000th physician

Inland Empire and Seventh-day Adventist Church history was made on Sunday, May 29, 2011, when the 10,000th medical student to graduate from Loma Linda University School of Medicine crossed the stage to receive his diploma.

Receiving that distinction was Reiker Schultz, MD, a third-generation Loma Linda University School of Medicine graduate.

“My friends and family told me there were fireworks on the large screen,” Dr. Schultz laughs, “and that they even played a special fanfare, but I don't remember any of it!”

“I was utterly shocked and in a daze,” Dr. Schultz admits. “In retrospect, however, the experience gave me a bigger burden to do





Reiker Schultz, MD (right), receives his diploma from a smiling Roger Hadley, MD, dean of the School of Medicine, as he becomes the 10,000th physician graduate amid fanfare and fireworks (via the Jumbotron behind the stage). ▲

something special with my life and my career in order to honor the School of Medicine.”

Roger Hadley, MD, dean of the School of Medicine, says, “This community and this Church should be very proud. Over more than a century, they have sustained a medical school that has graduated a Western United States record 10,000 medical students. The next closest is Stanford University, with 7,000 graduates.”

In October 2009, the school began a five-year celebration of its 100th anniversary. In 1909, the first medical school class of five students began training at the College of Medical Evangelists, precursor to the LLU School of Medicine. That first class graduated in 1914, meaning that the 100th class will graduate in 2014, when the school will conclude its centennial celebration.

“During much of the school’s history, the surrounding communities were largely orange groves,” Dr. Hadley continues. “For a medical school to flourish in this setting is really quite remarkable.”

The university property was purchased at the insistence of Ellen G. White, a leading pioneer of the fledgling Seventh-day Adventist Church. She urged John Burden, an Adventist pastor and educator, to make a down payment on the property. Within a year, the property had been paid for through private donations.

Loma Linda University School of Medicine is only one of a handful of schools nationwide to graduate 10,000 students or more.

Following graduation, these School of Pharmacy graduates display their prescription for class spirit. ◀

From left, Midhasso Foge, Tammy Nguyen, and Nellie McKenzie were among 58 PharmD graduates. ▶

Though previous classes were smaller, the school currently graduates more than 150 students each year. This year’s class numbered 162.

“Loma Linda University School of Medicine estimates that between one third and one fourth of physicians practicing in the Inland Empire have received some type of training at Loma Linda—whether medical school or residency,” Dr. Hadley points out. “That represents a major impact on the health care provided in our region.

“To think of the impact this school—with more than 10,000 graduates—has had on health care throughout the world,” Dr. Hadley continues, “is staggering.”

Dr. Hadley adds, “The Loma Linda University School of Medicine is also the longest continuously accredited medical school in Southern California.”





Dental hygiene graduate Jordyn Gascay is surrounded by siblings following the School of Dentistry graduation. ▲

He attributes the sustained success of the school in a major part to the community, which has provided a wide variety of educational and training venues for the medical students and residents, as well as patients through whom the students and residents gain experience.

"We could never graduate classes with more than 150 students if it weren't for the other health care institutions in the Inland Empire that provide critical training experiences for our students," Dr. Hadley says.

On Tuesday, May 31, Dr. Schultz and his family started on a cross-country journey that will take them to Cincinnati, Ohio, where Dr. Schultz will begin an internal medicine residency at The Jewish Hospital. He and his wife, Jessica, have two children: Jaron, age 10, and Alaina, age 8.

Dr. Schultz grew up in Chesaning, Michigan. Frank Richard



Joni Stevens, EdS, MS, receives a congratulatory hug from Ronald J. Dailey, DDS, executive associate dean, School of Dentistry, upon receiving the School Distinguished Service Research Award. ▲

Schultz, MD, his grandfather, graduated from LLU School of Medicine in 1940 and established a successful practice. His father, Richard Frank Schultz, MD, graduated in 1974 and completed an internal medicine residency, before joining his father's practice.

Prior to completing his pre-medical requirements and a general science bachelor's degree primarily in the biological sciences in 2007, Dr. Schultz was a computer-aided design (CAD) specialist at an automotive manufacturer in Portage, Michigan.

Following his residency, Dr. Schultz and his wife plan to serve abroad in a mission appointment. "Mission service is the real reason I came to medical school," he explains. "I want to do something real with my life that involves service to others." SCOPE

Lisa Rander, MSW (right), takes a special photo with her dean, Beverly Buckles, DSW, of the School of Science and Technology. ▲

Family members of Ernest Gonzales, MFT, hand their cameras to an unseen designated photographer. ▼





School of Nursing graduate Lee-Ann Dizon performs "It's So Hard to Say Goodbye to Yesterday." ▲



A School of Nursing graduate uses her graduation cap as a signboard for an important message. ▲



MBA graduate Komal Badar waves to her supporters in the audience as she crosses the stage after receiving her diploma. ▲

Iponiuese Eliapo celebrates upon receiving the President's Award. She also earned an entry-level master of occupational therapy degree from the School of Allied Health Professions. ▼



Thelma Gamboa-Maldonado receives her doctoral hood from Helen Hopp Marshak, PhD (left), and Susanne Montgomery, PhD, MPH. Dr. Gamboa-Maldonado earned a DrPH in health education and is currently a member of the School of Public Health faculty. ▲

Communication sciences and disorders students sign "The Lord's Prayer," set to music, as a closing benediction, which has become a graduation tradition. ▼





A new *alma mater* to call home

Loma Linda University School of Medicine rescues the dreams of 15 displaced medical students from Puerto Rico

Carla Perez, a third-year medical student at San Juan Bautista School of Medicine in Caguas, Puerto Rico, received the devastating news via a text message from one of her friends.

Her medical school had lost its accreditation by the Liaison Committee on Medical Education (LCME). Though the school would remain open and graduates would be able to work as generalists in Puerto Rico, they would not be able to sit for board exams or apply to residency programs in the United States.

"The news spread like wildfire!" she remembers. "The school didn't break it to us until the next day, but by then, everybody knew."

The October 3 termination letter from LCME—the accrediting body for medical schools in the United States, Canada, and Puerto Rico—did contain a ray of hope for San Juan Bautista (SBJ) students devastated by the decision.

"The Association of American Medical Colleges (AAMC) will be notified of this decision," the letter informed. "In the past, the AAMC has assisted displaced students seeking to transfer to an LCME-accredited program. We believe similar assistance will be provided to SJB students who seek it."

The closure stranded 275 medical students who now had no place to continue their studies.

The students didn't exactly sit around waiting for something to happen. They reached out to the AAMC and were instructed to refer to the organization's website for a list of frequently asked questions. They didn't need a second invitation.

"AAMC put up a website," recalls Sarah Beck, also a third-year student, "with a list of schools that were willing to consider transfer students. We applied to every school we could. Loma Linda was the first to offer a decision."

Roger Hadley, MD, dean of Loma Linda University School of Medicine, followed in the footsteps of two previous Loma Linda deans in reaching out to medical students in their

moment of need. In 1910, stranded students from the University of Southern California's medical school landed at the College of Medical Evangelists when that medical school closed its doors. In 1989, medical students from the closing Oral Roberts University medical school in Oklahoma once again were taken in by Loma Linda University School of Medicine. In that case, the entire university closed its doors.

Dr. Hadley responded to the AAMC and offered to help. He dispatched a team of five faculty members—Daisy De Leon, PhD; Tammi Thomas, MD; Paul Herrmann, MD, PhD; Carlos Casiano, PhD; and Marino De Leon, PhD—to Puerto Rico to interview the students from October 19 to 21.

According to Daisy De Leon, PhD, assistant to the dean for diversity, "A total of 59 students applied to Loma Linda, 42 completed the secondary application, and we interviewed 22 students."

Dr. De Leon adds that nine third-year students, two fourth-year students, and four deferred third-year students were eventually selected for transfer to Loma Linda University.

The process of interviewing the prospective transfer students took a considerable amount of time. "They came to Puerto Rico and interviewed us," Sarah Beck shares. "We each had three interviews of 20 to 40 minutes duration. I had heard about Loma Linda before because David Jaspers, the husband of my good friend from Michigan, is a third-year student here."

Carla Perez had also heard of Loma Linda University before, but she knew relatively little about the school until the accreditation crisis forced her to look for a new place to study.

"A week later," Ms. Perez informs, "on Wednesday, October 26, we learned that we had been accepted to Loma Linda University School of Medicine. We were very excited, and felt a great sense of relief!"

The accepted transfer students began arriving on the Loma Linda University campus a day or two before orientation scheduled for Wednesday, November 2. They dove headfirst into the process of acclimating to their new school, community, and—for some of the students—nation. One of the first obstacles ahead of them is catching up academically to their peers in the School of Medicine.

"We were told we're about 20 weeks behind the Loma Linda students," Ms. Perez reports. "However, they hope we can make up

Third-year medical students Carla Perez (left) and Sarah Beck are two of the 15 students from Puerto Rico who recently transferred to the Loma Linda University School of Medicine from San Juan Bautista School of Medicine in Caguas, Puerto Rico. ◀



Roger Hadley, MD, dean of the Loma Linda University School of Medicine (standing), welcomes 11 of the 15 students who transferred from San Juan Bautista School of Medicine in Caguas, Puerto Rico, to Loma Linda. The students were displaced after their school lost its accreditation for failing to provide adequate clinical opportunities. ▲

the difference before we graduate. It depends on how competitive our choice of specialty is. In some cases, it might be best to take a little extra time and do research.”

When asked about her future plans, Ms. Beck says she’s considering ophthalmology or dermatology for her specialty, and adds that she’s excited about the clinical opportunities Loma Linda University School of Medicine affords.

“I particularly want to work with Hispanic patients,” she says. “It’s not very diverse where I’m from in Northern Michigan, but here in Loma Linda, I will have plenty of opportunities to work with a large Hispanic population.”

Ms. Perez plans to pursue pediatrics or pediatric gastroenterology as her specialty. She is particularly excited about the opportunities for global service offered at Loma Linda through organizations like Students for International Mission Service. With Ms. Beck, she believes the physician of the future will need to be bilingual and culturally literate in order to minister to the needs of patients in the context of trends that are currently altering the demographic and social landscape of America.

“The story of the Good Samaritan informs us that when we see a person in need, we should stop and help them, and find a place for them to stay,” Dr. Hadley explains.

He notes that the Loma Linda University School of Medicine has trained more than 10,000 graduates, and is recognized as a national leader in educating future doctors for Christian service.

Carlos Casiano, PhD, associate director of the Center for

Health Disparities and Molecular Medicine, says the story is particularly rewarding to members of the faculty team who went to Puerto Rico to interview potential transfer students.

“To see them now at Loma Linda University as our own students brings a lot of joy, and the satisfaction that our school has given them hope and is saving their medical careers,” he notes. “While still a little apprehensive and overwhelmed because of the drastic changes in their lives, these students are elated and extremely grateful to Loma Linda University and to God for the new opportunity given to them. They, and a lot of people in Puerto Rico and other places, are speaking very highly of the School of Medicine for the quick, smooth, and compassionate way this ‘rescue operation’ was conducted.”

Speaking for all 15 of the newest LLUSM students, senior Angie Lastra, who also recently arrived in Loma Linda, says, “It’s a blessing to be here. We felt like it was the end of the world when our school closed, but now we are glad to be here.

“We are eternally grateful!” she concludes. **SCOPE**

Sarah Beck, a junior medical student, says that after San Juan Bautista School of Medicine of Caguas, Puerto Rico, lost its accreditation, students applied to other schools willing to consider allowing students to transfer, including the Loma Linda University School of Medicine. “Loma Linda was the first to offer a decision,” she reports. ►





A heart sent by God

Doctors at Loma Linda University replace an ailing teenager's heart

The 10th grade classroom was silent except for the sound of an occasional page being turned and the scratching of pens and pencils. His class was taking an exit exam, and Jobbany Garibay was determined to do well. However, he was finding it impossible to concentrate. "That day I had a headache and chills," he says. "I began shaking, and the teacher sent me home. I was so sick that I couldn't sleep."

Maria Garibay, Jobbany's mom, was worried. Jobbany was an athletic kid; he enjoyed playing soccer with his friends. He was also accomplished at horseback riding—his reputation spread when he confidently rode a horse in his hometown in Mexico that everyone else had been too afraid to ride.

Ten days after surgery, Jobbany has his final echocardiogram before going home. Jobbany glances at the screen, which shows his healthy new heart. The heart had been named "Godsent" by the transplant team. ▲

Maria took Jobbany to a nearby doctor who thought he might have the flu. He prescribed medication and sent them home. When the medication didn't help, Maria took Jobbany to the emergency room. His heart was racing—175 beats per minute. His doctor ordered a spinal tap and he was again sent home.

Another day passed and when Jobbany became weaker, Maria took him back to the local emergency room where he was given a second spinal tap. "The doctors asked us many questions," says Maria. As the hours passed, Jobbany's condition worsened. "I couldn't stand," he says. "My vision became blurry and I needed a wheelchair because I couldn't walk."

"While we waited for the test results, our whole family, including Jobbany's little brother and sister, were all on our knees, praying," says Maria. "I asked Jobbany's brother, Jonathan, to notify his uncle and other family members."

It was nighttime when a doctor met with Maria. "I'm sorry for your son," he told her. "He is very ill; he has bacterial meningi-



Family and friends celebrate with Jobbany Garibay (center), as he prepares to go home after lifesaving surgery. Pictured are (from left) Jobbany's younger brother, Jonathan; his mother, Maria; Merrick Lopez, MD; Jobbany; Nahidh Hasaniya, MD, PhD; Natalie Virrueta, RN; and Cheryl M. Mathis, RN, transplant coordinator. ▲

tis." The doctor recommended that Jobbany be transferred to Loma Linda University Children's Hospital to receive specialized care; he would arrive at 2:00 a.m.

As she drove home in the early morning hours, Maria's car radio was tuned to a Christian station. She heard these words: "I am Jesus your God. I won't leave you; I will never leave you alone. I will always be with you." The promises renewed her faith. "I was at peace," she says. "God never left—He has remained with me and with our family."

The next time Jobbany's parents visited him at Loma Linda University Children's Hospital, Maria remembers, "There were many, many machines around him. The doctors, nurses, and translators treated us with empathy."



"We discovered," says Nahidh Hasaniya, MD, PhD, "that Jobbany had a severe heart valve infection. About a week later he had his first surgery—to repair one of his heart valves and to clean and repair two abscesses inside the heart."

After the surgery, his doctors hoped he would be able to go home. However, the inside of his heart became reinfected with multiple destructive abscesses. "This required aggressive treatment," says Dr. Hasaniya, "with several antibiotics to allow his heart to heal enough for another major operation."

Physicians providing cardiac care at Loma Linda University Medical Center and Children's Hospital are confident in their mission. They are dedicated to providing comprehensive diagnostic, interventional, surgical, and preventive cardiac (heart) services for all patients regardless of age, complexity, or severity of their cardiac problem.

As part of a teaching facility, Loma Linda doctors provide care for complex heart disease and train medical students, residents, and fellows. But Jobbany's doctors had never encountered a condition like his, nor could they find literature detailing a similar case. They reached out to colleagues—specialists at hospitals throughout the United States. No one knew the answer.

Jobbany became depressed. He pleaded with his doctors to

Nahidh Hasaniya, MD, PhD, was on the surgical team that gave Jobbany his new heart. After being in the operating room for more than 20 hours, Jobbany awakened just two hours later and asked for a drink of water. ◀



Jobbany Garibay shares a moment with his surgeon, Nahidh Hasaniya, MD, PhD, associate professor of surgery, department of cardiovascular and thoracic surgery. ▲

let him go home, and they finally agreed. He was too sick to run on the soccer field with his friends or go to school. As spring passed into early summer, he was excited about watching fireworks. It became harder for him to breathe and he felt weak. Before the sky lit up with flashes of brilliant color marking another 4th of July, he told his mother to take him back to Loma Linda University Children's Hospital.

Dr. Hasaniya and Anees Razzouk, MD, performed the surgery to repair Jobbany's extensively damaged heart, working for several hours. "As the surgery progressed," says Dr. Hasaniya, "Jobbany's heart was so damaged that we didn't think that he could survive."

When Dr. Hasaniya went to the surgery waiting area to talk with Jobbany's parents, they were in the chapel, praying. "I saw his face," says Maria, "and even before he said a word I knew I wouldn't want to have his job that day." Dr. Hasaniya told Jobbany's parents the grim news: his heart was so damaged that it could not beat again.

The only thing that could save Jobbany's life was a new heart. He was on the transplantation list but on internal hold, awaiting his surgery. "I had good feeling about Jobbany's surgery that day when I woke up," says Dr. Hasaniya. "When I came back, Jobbany was on two artificial pumps to support the heart to bridge him for transplant. Usually it takes weeks to months before a patient gets a heart donor available, if he or she is lucky. When I returned to the operating room, I learned that Dr. Razzouk had called the transplant coordinator and discovered that Loma Linda had been offered a heart earlier that day for another patient determined not appropriate for that patient. Remarkably, it was a perfect match."

Immediately the transplant coordinator contacted the procurement coordinator to see if the heart was available. Following organ procurement policies, communications were made and as Dr. Razzouk left to bring back Jobbany's new heart, Dr. Hasaniya returned to the surgery waiting area to share the news with his parents.



Jobbany, a 10th grader, is a skilled equestrian. ▲

"This time," says Maria, "his face was different, joyful."

Dr. Hasaniya placed Jobbany back on the heart-lung machine until Dr. Razzouk returned with his new heart, then his body was cooled down to 18 degrees centigrade. "It truly was a team effort," says Dr. Hasaniya. The evening passed into early morning, and as the surgeons completed their work, the new heart began to beat.

Though Jobbany had spent more than 24 hours in the operating room, it was only two hours before he awoke. "We were all in tears when Jobbany woke up and began asking for water," recalls Dr. Hasaniya.

Ten days after his heart transplant, Jobbany was preparing to go home. He feels grateful to his heart donor. "I'd never thought about organ donation before," he says. "But if I had the chance to talk to someone who isn't an organ donor now, I would say, 'If the person who needed your heart was standing right in front of you, asking, could you tell them no?'"

A technician brought in portable imaging equipment for Jobbany's final echocardiogram before he went home. She attached leads to his chest and a picture of a heart appeared on the screen. Its beat was strong. Jobbany talked about being able to run again—to join his friends on the soccer field. He wants to go back to school and study to become an engineer or a mechanic.

When the test was over, nurses, physicians, and physical therapists who had taken care of Jobbany for so many months stopped by his room to say goodbye. One of the residents brought him a gift—homemade chocolate macadamia nut cookies.

"That Jobbany is alive and doing well is a miracle," says Dr. Hasaniya. "This miraculous case made me appreciate the many years I worked so diligently to become a doctor. Though I had been up for more than 24 hours, I was very happy—full of power—not tired at all.

"Each donor heart is given an alias name," concludes Dr. Hasaniya. "Jobbany's new heart had been given the name 'Godsent.' God answered all of our prayers. He was with us in the operating room that day." SCOPE



Snapshots of diversity

Loma Linda University welcomes diversity and encourages unity

The campus of Loma Linda University welcomes students, faculty, staff, and visitors from every corner of the global community. Not only is it important to go around the world, spreading the message of healthful living and helping “to make man whole,” but it is equally important to be inclusive and welcoming on the university campus itself.

Following are four snapshots of diversity on the Loma Linda campus. These snapshots are representative of all that is taking place to educate and send forth health care professionals who seek to continue the “teaching and healing ministry of Jesus Christ.”

Snapshot 1: The historian and the pioneer

As official historian of Loma Linda University, Richard A. Schaefer is used to taking the long view, metaphorically at least.

Today, however, he’s doing it literally. Hunkered over a table in the Heritage Room of the Del E. Webb Memorial Library with a magnifying glass in hand, Mr. Schaefer is scrutinizing a stack of

photographs from the early days of the College of Medical Evangelists, as the university was known in the beginning.

“There,” he says, “take a look at this picture.”

The image in question depicts 16 members of the class of 1910 from the School of Nursing. Fifteen are female, one is male, and one—the lady Mr. Schaefer is pointing to—is both female and African American.

“Her name was Anna Lumley,” he reveals. “To the best of my knowledge, she was the first minority student ever to graduate from any of our programs.”

It’s difficult to imagine how Ms. Lumley might feel if she returned to the campus today, but Mr. Schaefer thinks she’d be proud of the changes. From just one minority student in 1910 to a total of 2,451 in the spring of 2011, the outlook for diversity in education at Loma Linda University has improved dramatically since Anna Lumley received her diploma here 101 years ago.

Mr. Schaefer says that, in a world where ethnic and cultural



Richard A. Schaefer, official historian for Loma Linda University, looks a little closer at some historical photos of early Loma Linda graduating classes. ▲

differences often lead to misunderstandings, the Loma Linda University approach is worthy of emulation: experts praise the university's pipeline programs for helping racial and ethnic minorities enter the medical and science professions, and visitors applaud the fact that people from many ethnic backgrounds treat each other with collegiality and respect.

"It's like a miniature United Nations," he observes.

Nationally, the clamor for diversity was triggered by dramatic social and demographic changes over the past 30 years, but the concept has been around much longer at Loma Linda. While inclusiveness, global outreach, and multiculturalism aren't mentioned by

Young scientists of tomorrow, their mentors, and others involved in the annual summer research symposium, sponsored by the Loma Linda University Center for Health Disparities and Molecular Medicine, smile for a photo. ▼

name in the university's founding documents, Mr. Schaefer insists they're implied in its commitment "to continue the teaching and healing ministry of Jesus Christ."

Snapshot 2: The summer research symposium

In this snapshot, 35 smiling young people gather onstage at the Wong Kerlee International Conference Center the evening of Tuesday, August 2, 2011.

The group is being honored for participating in the 11th annual summer research symposium of the Center for Health Disparities and Molecular Medicine at Loma Linda University. An approving crowd of 250 parents, faculty members, and friends cheers as the students line up to smile for the camera.

According to Marino De Leon, PhD, director of the center, these young people are the ground troops and foot soldiers in America's battle to make sure ethnic minorities are strongly represented in the next generation of physicians and health scientists.

They're a diverse bunch: 16 are high school students, 14 are in college, and five are physicians-in-training. All 35 were hand-selected to spend the summer conducting graduate-level research at Loma Linda through three separate programs—the Apprenticeship Bridge to College, Undergraduate Training Program, and Initiative for Maximizing Student Development.

The first program is funded by the National Institutes of Health (NIH) to provide summer opportunities in research to Inland Empire high school students, in hopes of awakening them to career possibilities in medicine and science. The second provides the same opportunities for undergraduate students from around the nation, and the third—also funded by the NIH—is for graduate students enrolled in either the PhD or MD/PhD programs at the Loma Linda University School of Medicine.

The students are also ethnically diverse. Only two members of the group are described as "White non-Hispanic." Of the rest, 13 are African American, 13 are Hispanic American, five are listed as "other," one is American Indian, and one is Asian American.

Dr. De Leon says the need to bring promising scholars from



underserved minorities into the health professions is rooted in shifting demographic trends.

"Census projections for the United States show that what are currently called 'minority populations' will become the majority before 2050," he reports. "This is happening at a faster rate in California than in other parts of the country, and it has already taken place in many metropolitan regions.

"However, only five percent of California physicians are Latino, and only three percent are African American," he adds. "But since Latinos represent more than a third of the total adult population of California, and African Americans represent more than seven percent, this is a serious disparity."

He says the shift in demographic realities will mandate the education of large numbers of bilingual, culturally literate physicians in the future for the simple reason that patients are often reluctant to discuss medical conditions with physicians who don't speak their language or understand their culture.

"The American Association of Medical Colleges predicts a shortage of 124,000 to 159,000 physicians by 2025," he continues. "Nationwide, only about 15 percent of medical school enrollees belong to these underrepresented groups and less than 6 percent of the doctoral degrees in science and technology are awarded to African Americans, Native Americans, and Hispanics."

In spite of these predictions for national physician deficits, Dr. De Leon is optimistic about the outlook for minority education at Loma Linda.

"This presents an interesting opportunity for universities like Loma Linda," he says. "In order to fulfill our goal of developing healthy and educated communities, it is critical to have pipeline programs to develop competent leaders who can go back and improve health conditions in their communities."

The pipeline programs he directs have been in place at Loma Linda University for more than a decade, and Dr. De Leon is pleased at how they're paying off.

"The Apprenticeship Bridge to College program has awarded 147 research internships to 119 junior and senior students attending our local high schools," he proudly says. "A respectable 77 percent of past program participants are completing their undergraduate degrees in science disciplines.

"This is almost four times the nationwide rate of 20 percent for underrepresented minority students!" he concludes.

Snapshot 3: Former EEOC chair speaks her mind

Cari Dominguez, MA—who chaired the federal government's Equal Employment Opportunity Commission (EEOC) before serving on the Board of Loma Linda University and Medical



Cari Dominguez, MA, former chair of the federal government's Equal Employment Opportunity Commission (EEOC), now serves as a consultant for diversity and multiculturalism on the Loma Linda campus. ▲

Center for five years—currently consults on diversity and human resources at Loma Linda University Adventist Health Sciences Center. She extends the fingers of her left hand to explain why she is so passionate about diversity and multiculturalism on campus.

"When it comes to diversity at Loma Linda," she says, "there are several things we should be bragging about.

"First," she says, "we take pride in a program started by Dr. Leroy Reese several years ago, called the minority introduction to the health sciences (MITHS) program."

Ms. Dominguez says the MITHS program brings African American Seventh-day Adventist high school students to the campus for a three-week introduction to health careers every summer. She says it has encouraged many students to enter the medical or health professions. Program founder Leroy Reese, MD, is an associate dean in the Loma Linda University School of Medicine.

The second reason Ms. Dominguez cites for enthusiasm is the previously mentioned Apprenticeship Bridge to College program, founded by Dr. De Leon. It invites academically qualified high school juniors and seniors from all underserved minorities to spend a summer at Loma Linda University gaining hands-on experience in the research laboratory.

As she raises her third finger, Ms. Dominguez mentions the Institute for Community Partnerships.

"The institute," she points out, "serves as a bridge between the university and its medical center, and the local community. The purpose is to strengthen partnerships between the campus and the community and increase our capacity to serve community needs and improve health outcomes for residents of the Inland Empire."

In recounting the fourth reason for optimism, Ms. Dominguez cites commendations the university recently received from two prestigious national journals:

The first—*The Hispanic Outlook in Higher Education*—ranks

Loma Linda University ninth in the nation in terms of professional medical degrees awarded to Hispanic students. The second—*Diverse Issues in Higher Education*—puts the Loma Linda University School of Nursing in 37th place among the top 100 universities awarding baccalaureate nursing degrees to minority students.

“These are significant accomplishments,” she notes, “placing Loma Linda University as a national leader in these areas.”

For her final reason, Ms. Dominguez points to a handful of additional campus organizations and programs focused on diversity.

“The Diversity Faculty Forum, the Association of Latin American Students, the Asian Pacific Student Association, the Black Health Professional Student Association, and College Exodus and Si Se Puede programs—these offer a variety of educational and social resources to minority students,” she says.

“We also have two thriving alumni groups: the Hispanic Alumni of Loma Linda (HALL), and the Black Alumni of Loma Linda (BALL),” she continues. “The focus of all these efforts is to attract, develop, and mentor students into health leadership roles.

“We have a lot to be proud of,” Ms. Dominguez concludes, “and we have the results to prove it!”

Snapshot 4: Diversity by the numbers

Every year, Rick E. Williams, PhD, vice president for enrollment management and student services, crunches the numbers to determine the ethnic makeup of the Loma Linda University student body. His most recently compiled statistics feature data for the spring quarter of 2011.

Of the 4,366 students registered in the university’s eight schools during that time:

- + 1,915 were “White non-Hispanic”
 - + 1,315 were “Asian or Pacific Islander”
 - + 630 were “Hispanic”
 - + 339 were “Black non-Hispanic”
 - + 157 were “Multiple Ethnicities”
 - + 10 were “American Indian or Alaskan Native”
- Expressed as percentages, the numbers reveal that:
- + 43.9 percent were “White non-Hispanic”
 - + 30.1 percent were “Asian or Pacific Islander”
 - + 14.4 percent were “Hispanic”
 - + 7.8 percent were “Black non-Hispanic”
 - + 3.6 percent were “Multiple Ethnicities”
 - + 0.2 percent were “American Indian or Alaskan Native”

Statistics released by the Southern California Association of Governments (SCAG) provide a basis for comparing the ethnic constitution of the student body with those of the six Southern California counties in the SCAG database.

According to the SCAG website, Hispanics represent the majority among the four largest ethnic groups of Southern California with 40.57 percent of the total population. Whites come in second at 38.85 percent, Asians third at 10.19 percent, and African Americans take fourth with 7.30 percent. But at Loma Linda University, whites and Asians together account for nearly three-fourths of the student population.

The gap is wide. The largest discrepancies are the statistics for Hispanics and Asians. While Hispanics represent a 40.57 percent majority of the general population in Southern California, they represent only 14.4 percent of Loma Linda students. The spread is greater than 25 percent.

Asians, on the other hand, fare significantly better at the university, where they constitute 30.1 percent of the student population, than they do in Southern California as a whole, where they represent only 10.19 percent of the population.

Blacks are slightly better represented on campus than they are in Southern California at large: 7.8 percent of Loma Linda University students are black, while 7.30 percent of Southern Californians are identified as African American.

Native Americans emerge as the group with the most ground to gain. According to U.S. Census Bureau reports, Native Americans constituted only 1.0 percent of the population of Southern California in 2010, but among the Loma Linda University student population, the number is only 0.2 percent.

Richard H. Hart, MD, DrPH, president, says efforts are underway to recruit more Native American students to the campus.

“We have worked many times on initiatives with Native Americans,” Dr. Hart notes. “We have had quite a number come through here during the years, but never at a great volume.” He cites a scholarship fund, which was recently established off campus for the purpose of helping Native American students attend Loma Linda University, and says he’s confident that outreach to the group will produce greater results over time.

In summarizing the status of diversity recruitment at Loma Linda, Obed Martinez, director of multi-cultural marketing and recruitment in the office of enrollment, says the university is committed to meeting the changing needs of the surrounding community.

“From its location in San Bernardino County—where the two largest ethnicities are Latino and African American—Loma Linda has established relationships with community organizations to promote higher education to Latino and African American high school students,” Mr. Martinez observes. “Through a number of innovative programs, the university not only introduces students to careers in health care, but also shows them how to study effectively, and pushes them to become the best that they can be.” **SCOPE**

Dentistry service learning groups travel the globe

By Doug Hackleman

While many American students were sunning themselves on the beaches of warm latitudes, the 81 team members from seven Loma Linda University School of Dentistry (LLUSD) service learning groups provided oral health care to underserved people around the globe—including Bangladesh, Brazil, Guatemala, Honduras (two teams), Los Angeles, and New Mexico.

And from what the 59 School of Dentistry student participants had to say, the experience was more meaningful than a traditional spring break. A brief overview of each teams' experience follows.

Bangladesh

Faculty leaders Paul Yoo, DDS, assistant clinical professor, dental education services; Kenneth Lim, DDS, assistant clinical professor, dental education services; and Carlos Moretta, DDS, assistant professor, oral and maxillofacial surgery, led 14 School of Dentistry students (four from dental hygiene, one first-year, four second-year, and five third-year from dentistry) halfway around the world for a week at the 22-acre Seventh-day Adventist Kellogg-Mookerjee Memorial Seminary (school and orphanage) at Gopalgini, in the People's Republic of Bangladesh, bordered on three sides by India, and including a small border with Myanmar.

The 26-hour trip included a several-hour layover in Dubai, and the contrast between the glittering capital of the United Arab Emirates (where stands the world's tallest building) and Dhaka, the capital of Bangladesh, was remarkable. From the non-air-conditioned airport, a six-hour ride in a well-seasoned bus conveyed the dental team

Patients line up outside a clinic in Bangladesh. ►

to the Adventist campus, where they treated approximately 1,500 patients in four-and-a-half days. Patients and their families would assemble at midnight, waiting without food or water, in hopes of receiving care when the day arrived.

Four dental hygiene students were able to spend about 10 minutes per patient, and were faced with significant tartar (hardened plaque) and beetlenut stains. They mostly cleaned just the upper and lower front teeth—work that without cavitrons (tools using high-frequency sound waves to clean teeth) would not have been possible.

The 10 dental students found themselves pulling teeth, performing oral surgeries, restorations, and cleanings. Twenty volunteers from the Adventist college served as translators, facilitating communication.

Participants commented on the “irreplaceable dental education obtained on this trip,” the gain of “enormous confidence” in performing a variety of clinical procedures, and the encouragement of their faculty leaders. Several participants said they would go again “in a heartbeat.”

Kyle Ewert (class of 2012) wrote, “It really



Ally Kim, a third-year dental student, holds a charmed patient. ▲

puts things in perspective when you live in [another] culture for a week.”

Brazil

A service learning trip to Brazil, led by Greg Mitchell (dental class of 1984), director, international dentist program (IDP); Michael Fitzpatrick, DDS, professor, restorative dentistry; and Michael Potts, DDS, adjunct assistant professor, restorative dentistry, launched seven IDP students and one senior dental student on a trip that included eight days on the Amazon River.

The team of experienced dental students cared for 275 patients and performed close to 770 procedures that included more than 400 extractions. “The remote villagers have adopted a Western diet,” Dr. Mitchell explains. “Every hut has a satellite dish, all of them positioned straight up. As a result of





Second-year dental students Rachel Tanbunan and Peter Park use sock puppets to teach children in Valle de Angeles, Honduras, about tooth care. ▲

watching television, the villagers (even with just a few teeth) request bleaching and acne medication.”

Sleeping in hammocks, the sight of dolphins jumping in the river, alligators lurking, and monkeys jumping from tree to tree made the team feel as if it was in a National Geographic special. Alligator spotting was a highlight of the trip for some students.

The last night in Brazil represented a welcome change from the crowded boat life and an opportunity to explore Manaus (capital of the Brazilian state of Amazonas), eat a pizza dinner, and sleep in the comfort of a hotel bed.

Team members wish they could have saved more teeth. However, they gained valuable clinical experience and were able to really get to know some classmates with whom they were hardly acquainted.

Guatemala

One School of Dentistry faculty member— Kim Nordberg, DDS, adjunct assistant professor, dental education services—joined Mike Roberts, DDS, a Simi Valley private practitioner, three Loma Linda University dental students (two second-year and one third-year), and

a group of 12 University of California, Los Angeles (UCLA) students on an eight-day service learning spring break to Guatemala, organized by the non-profit agency Help the Children.

Dr. Nordberg supervised two chairs assigned to three Loma Linda University students. Two performed procedures while one assisted. Meanwhile, Dr. Nordberg floated between the students, answering questions and giving start checks.

The other eight or nine chairs were utilized by the dozen UCLA students, and supervised by the general dentists, oral surgeon, periodontist, or pediatric dentist who accompanied them.

One Wednesday, the group was excused from duty to visit Antigua, the ancient capital of Guatemala. Local dignitaries not only arranged transportation and security for the visiting oral health care teams, but honored the group Saturday morning at the Guatemalan Museum of Antiquities.

Team members found the experience of serving the impoverished patients very rewarding and found the trip a valuable learning time that reinforced their professional and service goals.

Honduras (Valle de Angeles)

Residents from two areas of Honduras received oral health care services from teams of Loma Linda University School of Dentistry faculty and students.

Ten second-year students traveled to Valle de Angeles with Neal Johnson, DDS, PhD, assistant professor, oral diagnosis, radiology, and pathology, and, with the assistance of two local dentists and interpreters, treated 300 to 400 patients who with severe tooth decay and periodontal disease, providing extractions, cleanings, and fillings.

The team provided fluoride treatments and education in oral care by way of a puppet show to hundreds of school children in Valle de Angeles and nearby Tegucigalpa. The opportunity to teach young children to care for their teeth gave one student the chance to share his favorite motto, “It’s better to prevent than to lament.”

The gratefulness of the patients impressed team members, and the group was enthusiastic about the opportunity to be of service in Honduras.

Honduras (Roatan)

Because Honduras was once a British colony, communication at this service-learning venue was simple.

Four School of Dentistry clinical faculty— Bonnie Nelson, DDS, chair, department of pediatric dentistry; Steven Morrow, DDS, MS, professor, department of endodontics; V. Leroy Leggitt, DDS, MS, PhD, professor, department of orthodontics and dentofacial orthopedics; Richard Parker, DDS, MS, associate clinical professor, dental education services—a dental hygienist, dental manager, and three third-year dental students composed the team that provided dental services to the residents of Roatan, Honduras.

The mission trip is organized by the Calimesa Seventh-day Adventist Church to

Continued next page



share God's love through health education, dentistry, children's ministries, and facility development in the Roatan communities of Camp Bay and Diamond Rock.

At Roatan, the Loma Linda University School of Dentistry team worked Monday through Thursday—treating 129 patients by performing 203 restorations, 83 extractions, 65 cleanings, and 13 root canal procedures. Friday was a relaxation day at the seaside retreat, where tourism is the major source of employment. Using chairs made of PVC pipe and canvas (constructed in the Loma Linda area), the team's temporary "office" was assembled on the beach-facing veranda of a delightful seaside structure.

Dr. Morrow reported seeing "many Coca-Cola signs everywhere." He explains, "Because the water is hardly potable, soft drinks are a major thirst quencher, leading to high decay rates." Consequently, extractions outpaced endodontics. But the team was able to save many teeth, he noted, including the front teeth of a 20-year-old woman.

Everybody enjoyed evenings on the beach. It's no surprise that the dental students who went on this trip said that, given the opportunity, they would go again.

La Vida

James Padgett, DDS, assistant professor, restorative dentistry, and Barry Krall, DDS,

assistant professor, dental anesthesiology, led a dozen Loma Linda University dental students (one first-year, four second-year, and seven third-year) on a 700-mile drive to La Vida Mission, a boarding school for 75 Navajo children at an elevation of 5,000 feet in the northwest New Mexico desert near Farmington. The sparse landscape included an Adventist church built some years ago by a Maranatha team.

At the end of a 14-hour drive in two vans and two cars, 13 team members with all their dental supplies unloaded and moved into one house. Lounge chairs elevated on milk crates served as dental chairs, along with a modified weight bench. Most of the chairs had lights fashioned from microphone stands and flashlights.

This was not just an extraction trip, says Dr. Padgett. The team performed amalgam and composite fillings and restorations, as well as cleanings for more than 100 patients—"a little bit of everything." One student celebrated performing "a root canal that turned out amazing."

The widely scattered Navajo population lacked adequate transportation, so team members traveled into the surrounding area with a van to screen patients and bring them back to La Vida.

Weather contributed to the team's experi-

International dentistry program senior Jose Wu examines a young patient. An Argentine native and fluent in Portuguese, Dr. Wu was invaluable resource for his team as a translator. ◀

ence, including—on different days—a sand storm and snow. "There was no cell phone service or Internet," one student commented. "I had time to reflect on what is important in life."

Los Angeles

Meeting Each Need with Dignity (MEND) provides a unique venue among the spring service learning trips. Evan Lemley, DDS, assistant clinical professor, dental education services, and Scott Smith, DDS, assistant professor, restorative dentistry, were the supervising clinicians who oversaw the work of two dental hygiene and eight dentistry students (five second year and three third year).

Located in the San Fernando Valley, just north of Los Angeles, MEND is a non-profit organization with a huge modern building that helps meet the fundamental needs of impoverished Angelenos, providing food, job-finding assistance, and medical and dental services.

Participating students stayed at the Sheraton Hotel in Universal City and worked in a modern, well-stocked dental care facility, with seven chairs, a sterilization area, and an x-ray room. As in a private practice, the budding clinicians were provided assistants.

Second-year dental students were able to perform preparations, injections, and fillings. Many of the patients spoke little or no English, and team members were able to brush up on their Spanish language skills.

Although it was a short and comparatively comfortable experience, team members became acutely aware of the needs of so many people in the greater Los Angeles area. **NEWSCOPE**

LLUMC–Murrieta hospital reaches new milestones

By Kathryn Stiles

Since opening its doors for business on April 15, 2010, the Loma Linda University Medical Center–Murrieta has treated more than 6,500 patients and delivered more than 110 babies. Business is poised to expand due to new agreements with insurance providers and the Centers for Medicare & Medicaid Services. Additional medical services are also being developed, including open-heart surgery.



The hospital is addressing the needs of a fast-growing area that includes Temecula, Menifee, Canyon Lake, Wildomar, and Lake Elsinore. This region falls significantly below the national average in hospital beds per capita.

Loma Linda University Medical Center–Murrieta also brings to the area its only faith-based health care facility—something the community has eagerly embraced.

The project began as a dream for local physicians who joined forces under the leadership of John Piconi, MD. Together, they raised \$17 million, purchased the land, hired an architect, and gained needed approvals. The facility was to be known as Physicians Hospital of Murrieta, and doctors began the process of looking for an established health care partner in late 2005.

They found such a partner in Loma Linda University, and after nine months of discussions and legalities, the partnership was established. Ground was broken for the hospital in December 2007, and the hospital was completed and approved for occu-

pancy in February of 2011 after just 26 months of accelerated construction.

The full-service, acute-care hospital opened its doors for patient care on April 15 after completing a successful survey from the California Department of Public Health. It earned full accreditation from The Joint Commission on April 29 (the Joint Commission is an agency that monitors quality of patient care and gives recommendations to the government for possible Medicare/Medicaid participation).

On July 22, Loma Linda University Medical Center–Murrieta announced that it had secured a Medicare Provider Number from the Centers for Medicare & Medicaid Services, signaling another key milestone. This number means the hospital is now entitled to participate in Medicare services, and it will facilitate access to the hospital by those who are covered by Medicare.

Additionally, hospital officials recently announced the signing of two contracts with United Health, Blue Shield, Anthem Blue Cross, HealthNet, and Cigna, and they will likely have more announcements about providers and HMO contracts in the coming weeks.

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"The Medicare Provider Number is a key part in our ability to finalize our contracts and fully open our doors to meeting the community's health care needs," Mel Sauder, JD, MBA, interim CEO, says.

Until recently, all admissions have taken place through the emergency department, requiring case-by-case evaluation by the insurance provider and the hospital. Now, this key achievement is a major step in giving broader access to the services available at the hospital, which is now scheduling elective orthopedic and general surgical procedures.

Currently, leadership at the facility is working at an accelerated pace to build and launch a comprehensive cardiology program that will include open heart surgery—the first and only open heart program in the community. The facility will also provide a variety of new services including wound and hyperbaric medicine, women's diagnostics, radiation oncology, orthopedic surgery and rehabilitation, comprehensive physical, speech and occupational therapy, neurology, and many other much-needed services to the community. **NEWSCOPE**

LLUAHSC communication team wins awards

By Larry Kidder

During two separate awards events, the Loma Linda University Adventist Health Sciences Center (LLUAHSC) communication team took away a number of awards for projects.

Four Emmy Awards were received during the 37th annual Pacific Southwest Emmy Awards ceremony, as well as six awards at the more recent Public Relations Society of America (PRSA) awards banquet.

The National Academy of Television Arts and Sciences named "Loma Linda 360"

the best health/sciences program and the best magazine program in the southwest region at the 37th annual Pacific Southwest Emmy Awards.

Winning entries included:

Health/Science – Program or Special

- Loma Linda 360, episode 3: "Stephanie's Heart: Part 2," Michael Wolcott, Larry Kidder, Loma Linda University

Magazine Program

- Loma Linda 360, episode 5: Patricia Thio Kelikani, Maranatha Hay, Cosmin Cosma, Loma Linda University

Human Interest – Single Story or Series

- "Crossing Out Fear," Patricia Thio Kelikani, Cosmin Cosma, Loma Linda University

Documentary – Topical

- "Baby Blue," Maranatha Hay, Loma Linda University

According to Patricia Thio Kelikani, associate director of PR video, "Loma Linda 360" highlights Loma Linda's unique stories of transforming lives.

"We tell these stories so that the community can experience what Loma Linda is all about," she says, "and to inspire viewers to help make a positive difference."

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In Memoriam



Richard W. Weismeyer, MA
October 15, 1943 — January 12, 2011

Mr. Weismeyer served as editor of *Scope Magazine* for 36 years. Through his storytelling, alumni and friends of Loma Linda University read about the many ways God worked through individuals to bring healing to a broken world. He will be missed.

Scope Magazine staff

Season 3 featured gripping documentary footage taken just minutes after the 2010 Haiti earthquake, the story of Baby Fae who captured the hearts of the nation 25 years ago, and other documentaries that take place at home and around the globe.

The show aired last year on the PBS affiliate KVCR and KVCR-DC, and it may be viewed online at:

<llu.edu/360>
<youtube.com/lomalinda360>
<vimeo.com/channels/ll360>

This is the show's second year to win Emmy Awards. Last year, the university swept its categories by bringing home three Emmys. The 37th annual Pacific Southwest Emmy Awards took place on June 18, 2011, in Carlsbad, California.

During the PRSA–Inland Empire chapter awards banquet, held October 12, 2011, at Center Stage in Fontana and titled "Shining Stars of PR," LLUAHSC communication team members received six awards.

Cosmin Cosma, MA, video production spe-

cialist; Michael Wolcott, MA, video production specialist; and Dustin Jones, MA, associate director of university relations, won a Capella Award for their work on "Out of the Rubble." Mr. Cosma and Mr. Wolcott travelled to Haiti following the earthquake in 2010 to capture firsthand how Loma Linda was helping those in need. Mr. Jones served as executive producer.

Mr. Cosma, Mr. Wolcott, and Ms. Kelikani received a Polaris Award for "Loma Linda 360" Season 3.

Mr. Jones won the Capella Award for his work as editor and designer for *Loma Linda Nurse*, alumni publication for the School of Nursing. Marilyn Herrmann, PhD, RN, dean of the school, serves as executive editor for the publication.

Mr. Jones also won a Polaris Award for his work as editor and designer on the *Adventist Health International Annual Report*. Richard Hart, MD, DrPH, president of Loma Linda University, serves as executive editor for the publication.

Heather Reifsnnyder, MA, publications ed-

itor, received the Polaris Award for her work as managing editor and designer for *Sphere Magazine*, alumni publication for the School of Public Health. Tricia Pen-niecook, MD, MPH, dean of the School of Public Health, serves as executive editor for the publication.

For his story on an innovative study on ischemic pre-conditioning, James Ponder won a Capella Award. The article, titled "ICE on the summit," appeared in the Winter 2011 issue of *Scope Magazine*.

"Our team did really well," says Mr. Jones. "We have a healthy competition going against many of the PR agencies in the area and I'm always pleased at our results."

Inland Empire public relations professionals submitted entries in more than 22 different categories, ranging from community outreach and media relations to collateral development and social media programs.

The submissions were reviewed by judges from the PRSA Bluegrass Chapter in Kentucky. **NEWSCOPE**



The LLUAHSC team won Emmys in four categories. Pictured are (from left) Michael Wolcott, MA, video production specialist; Maranatha Hay, former video production specialist; Patricia Thio Kelikani, associate director of PR video; and Cosmin Cosma, MA, video production specialist. Not pictured is Larry Kidder, MA, special projects editor. (Courtesy Roesink Photography)



Members of the LLUAHSC communications team pause for a photo after winning six awards at the Public Relations Society of America Inland Empire chapter awards. From left are Cosmin Cosma, MA; Heather Reifsnnyder, MA; Michael Wolcott, MA; Nicole Dailey, president of PRSA–Inland Empire chapter; James Ponder; and Dustin Jones, MA.

Four School of Public Health faculty climb Mt. Kilimanjaro

By Janna Vasantachart

Four School of Public Health faculty members recently followed their own teachings on personal wellness all the way to the summit of Mount Kilimanjaro—the highest mountain on the African continent.

The grueling round trip took a total of six days, with more than four of those days spent ascending. The faculty members faced physical and mental challenges to achieve their goal.

Three of the faculty members—Joan Sabaté, MD, DrPH, chair of the nutrition department; Ronald Mataya, MD, associate professor of global health; and Mickey Ask, MD, assistant professor of health promotion and education—traveled in a group of eight to Tanzania in late January.

Their goal was to hike to the highest point of Kilimanjaro, Uhuru Peak. Rising to an altitude of 19,341 feet, Uhuru Peak is located on the Kibo crater rim. Kibo is the highest of the three volcanic cones that compose Kilimanjaro.

Drs. Sabaté, Mataya, and Ask reached Uhuru Peak by the Umbwe Route. This route is one of the most spectacular routes and goes directly to the peak, but it is also the toughest and least used due to steep slopes, narrow ridges, and glaciers, according to Dr. Mataya. The route is advised only for the fit, experienced climber who enjoys trekking.

Along with climbing Kilimanjaro, Dr. Sabaté also traveled to Kenya to assess the fieldwork of a DrPH graduate, Hellen Ndiku. She received a Nestlé Foundation grant to conduct a pilot study on the reintroduction of pearl millet, a native crop, into the diets of young children in rural Kenya.

The fourth faculty member, Tricia Murdoch, MPH, director of enrollment management, was in Kenya at the end of June with a group from the Loma Linda University Church.

She and the group worked with Mara West, an organization that runs safaris and builds clinics and schools for the local Maasai population. After assisting the organization for a week, she drove nine hours to Tanzania to make the climb with a group of 19.

The four faculty members endured the physical hardships of the long hike, little sleep, and lack of oxygen at the high altitudes. They also battled the urge to give up. Dr. Mataya says, “My mind kept asking me why on earth I was doing this.”

For Dr. Sabaté and Ms. Murdoch, the most challenging part was the night of the final ascent. Dr. Sabaté says the night was very dark and cold, and they needed to climb more than 4,500 feet. Ms. Murdoch says they ascended “rapidly and the whole experience was very disorienting.”

But, with the support of their groups and

motivating guides, the four faculty members reached the peak, and recall feeling exhilarated with the sense of accomplishment and the spectacular view.

“Although it was freezing cold and very windy, the view was just magnificent!” says Dr. Mataya. “The giant glaciers, the crater, and the sun rising above the clouds was a view that I will never forget!”

Wayne Dysinger, MD, MPH—assistant professor of health promotion and education, as well as health policy and management—also summited Kilimanjaro years ago when he was a student missionary. He remembers the view as giving him “the feeling of being on top of the world.”

The success of the Kilimanjaro trek was not achieved without dedication and commitment, noted the faculty members. They needed to train and ensure they were physically capable of completing the hike. Nutrition also needed to be considered.

These School of Public Health faculty members dedicated time outside of their daily roles as professors and physicians to increase their wellness and accomplish their goal of standing at the highest point of the African continent. [NEWSCOPE](#)



The sign proves it: a windblown Tricia Murdoch, MPH, indeed reached the summit of Mount Kilimanjaro.

LLUMC delegation called to the White House to share ideas on health outcomes

By James Ponder

Four representatives from Loma Linda University Medical Center (LLUMC) traveled to Washington, D.C. on Tuesday, September 20, 2011, to attend a one-day conference on “Improving Health Outcomes through Faith-based and Community Partnerships.”

The group—consisting of Ruthita J. Fike, MA, CEO of LLUMC; Gerald R. Winslow, PhD, vice president of mission and culture; Dora Barilla, DrPH, MPH, director of community health development; and Michael Knecht, MDiv, leader of the faith and health initiative at LLUMC—was invited to Washington because the Obama administration is eager to learn how faith-based and community partnerships can improve health outcomes for cities and towns from coast to coast.

LLUMC was one of only 21 organizations from the nation selected to participate in the event; it was also the only West Coast health system invited to attend.

Dr. Barilla says the purpose of the conference was to help the government identify the important roles that faith-based organizations play in improving the health of the nation and local communities.

“We shared our experiences in partnering with the faith community, as well as our successes and challenges, as a gift to a country in crisis,” she reports. Currently, LLUMC offers numerous programs aimed at increasing community health through prevention, diet, exercise, and other low-cost and sustainable methods.

“American health systems are not achieving desired health outcomes,” Dr. Barilla ob-

serves, “and this event was a pivotal point in history. As a nation, we acknowledged the need to partner with our communities to create a true ‘health system’ that creates value. This cannot be done in isolation.”

At the conference, Ms. Fike and Dr. Winslow engaged in a conversation with CEOs from other faith-based institutions about what LLUMC is doing to positively impact health outcomes in the Inland Empire.

“They also strategized on how we can do more of what is working,” Dr. Barilla says.

Mr. Knecht served as facilitator for a roundtable discussion on increasing access to primary care, while Dr. Barilla moderated a breakout session on improving community health.

“We shared the innovative practices developed here at Loma Linda,” Dr. Barilla adds, “and learned from others as well.”

She also reports that the federal government is committed to developing innovative strategies designed to enhance the quality of health throughout the nation. A number of new organizations and think tanks have been created to look for ways to do that while lowering the financial burden to taxpayers.

“Speakers from the newly formed Center for Innovation, a program of the federal Centers for Medicare and Medicaid Services (CMS), were present at the meeting to share new opportunities for health systems to implement creative and effective models of care with the conference participants,” Dr. Barilla shares.

She also notes that Mara Vanderslice Kelly, acting director for the Center for Faith-based and Neighborhood Partnerships, encouraged the group to stay connected and to

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Three of the four members of the LLUMC delegation, who recently traveled to the White House in Washington, D.C., for a day-long conference on faith-based and community partnerships, pause to commemorate the occasion. The fourth member of the team, Gerald R. Winslow, PhD, vice president of mission and culture, took the photo. Pictured are (from left) Dora Barilla, DrPH, MPH, director of community health development; Michael Knecht, MDiv, leader of the faith and health initiative at LLUMC; and Ruthita Fike, MA, CEO of LLUMC.

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provide leadership for other health systems in partnering with their local communities to improve the health of the nation.

"The passionate and robust conversation among the faith-based health systems was energizing and affirming," she says. "We came away convinced that creative partnerships among faith-based institutions and other community organizations are clearly going to be a critical component in improving the future of our country's health.

"We know that many of the strongest predictors of health fall outside of the health care setting," Dr. Barilla observes, "and in order to elevate the health status of our communities, we are going to have to create systems of care among all community partners. This meeting was an official recognition of the need to do just that."

Two members of the LLUMC team, Dr. Barilla and Mr. Knecht, returned to Washington, D.C., in October to continue the discussion and establish regional teams for ongoing resource sharing and strategy ses-

sions designed to benefit the public health.

Ms. Fike says the benefits of faith-based health care organizations collaborating to enhance health outcomes can produce significant results.

"We believe that an inspired community of healthy people will create a movement that can transform the community," Ms. Fike states.

Dr. Winslow agrees. "Our health ministry in Loma Linda was created in order to make the link between faith and health strong and practical," he says. "We believe that we were called to leadership in this distinctive ministry. We now see an opportunity to extend this leadership nationwide."

In appraising the value of what the Loma Linda team brought to the table, Dr. Barilla says the answer is in "our heritage of health ministry."

"Our greatest contribution to the discussion was in sharing what we know about prevention with other participants and government



Ruthita J. Fike, MA, CEO of LLUMC, stands in front of the White House in Washington, D.C., on Tuesday, September 20, 2011. Ms. Fike was in Washington to represent the medical center at a day-long conference on faith-based and community partnerships.

officials present at the meeting," she insists. "Prevention has been in our DNA since the inception of our health system. The concept of whole-person care, including the spiritual component, has always been at the foundation of our healing model." **NEWSCOPE**

Pharmacy students handcraft blankets for HIV patients

By Steve Vodhanel

For the second straight year, Loma Linda University School of Pharmacy students, under the direction of Jerika Lam, PharmD, assistant professor of pharmacotherapy and outcomes sciences, reached out to HIV patients at the Riverside County HIV clinics in Perris and Riverside.

In addition to their other activities at the HIV clinic, several of the students decided to "go the extra mile" for the HIV patients, organizing efforts to handcraft 24 blankets.

School of Pharmacy students Emily Garispe, Cathy Thach, Aimee Kohatsu, and

Tim Honrada organized the outreach and hosted a blanket party during February.

They were joined by fellow students and spent many hours cutting, sewing, and stitching together yards of decorative cloth into the blankets—all in addition to their busy class and study schedules.

"Our outreach at the clinic is part of an effort to destigmatize HIV and to promote wholeness," explains Dr. Lam.

"Through the outreach event," she continues, "we hope to bring awareness to our pharmacy students that there are people who are less fortunate than we." **NEWSCOPE**



Pharmacy students and faculty (back row, from left) Thuy Nguyen; Kristin Joe; Timothy Honrada; (seated, from left) Emily Garispe; Jerika Lam, PharmD; Dana Hexum; Ashley Nguyen, PharmD; Aimee Kohatsu; and Cathy Thach distribute their blankets to HIV patients.



Looking for a way to help family and Loma Linda University?



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For more information about a *Give it Twice Trust* or other giving and life income options, please contact us or visit our website.

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